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Technology Lecturer Turned Technology Teacher

Kerry Lee
University of Auckland

This case study outlines a program developed by a group of 6 teachers’ college lecturers who volunteered to provide a technology program to year 7 & 8 children (11- and 12-year-olds) for a year. This involved teaching technology once a week. As technology education was a new curriculum area when first introduced to the college, few lecturers had classroom experience of teaching this new subject. Although the lecturers had sound personal constructs of technology education and lectured in the area of technology education, teaching this age group for this extended period was a new experience for all. The lecturers’ honest evaluations document the difficulties and emotional times they encountered as they tried to implement the technology curriculum.

Background: The New Zealand Setting

The majority of New Zealand primary schools cater for children until year 6 (10 years old). In year 7, the children attend an intermediate school for two years. Intermediate schools bridge the gap between primary and secondary schools. Usually children are taught the “core learning areas” by a classroom teacher, but rotate around a variety of specialists including technology teachers. Some schools retain their year 7 and 8 children instead of sending them to an intermediate school. These are called “full primary” schools. The government supplies additional money for these children to be transported to another school or technology center in order for them to be taught by specialist technology teachers. These schools/centers are called providers. At year 9 (13 years old), children attend secondary school (Lee, 2003). In 1989, New Zealand educational reforms enabled schools to choose what programs were appropriate for their children. In the special circumstances, funding was given directly to individual schools for the delivery of technology education (Brown, 1999; Pedersen, 1997; Pole, 1992).

College Background

A basic outline of the college program is included to allow readers to gain an understanding of the emphasis, priority, and support that the college gives to students and staff of this new subject area. The college is a large institution which gains most of its funding from pre-service, in-service, and external contracts. Each of these agencies usually works independently of each other with minimal interaction. Pre-service education focuses on the early childhood, primary, and secondary sectors. Qualifications offered include diplomas, degrees, and graduate diplomas. Post-graduate courses are also offered but are currently not a major component of the college. As technology education is one of the seven compulsory learning areas (subjects) for children from 5 – 14 years old but is new to most students, the college ensures it is also a compulsory component for all primary degree and graduate diploma students. Early childhood also includes compulsory technology modules in all diploma, degree, and graduate diploma pathways. Students undertaking pre-service secondary teacher education only take technology modules if they have the subject as a major or minor focus.

Degree courses (primary and early childhood) require a technology education module - focusing on developing personal constructs - and an information and communication technology module - focusing on pedagogy and implementation - to be covered in the students’ first year. Another technology education module which focuses on implementation is required in their third year, with the ability for extra modules as options also in their third and final year. Technology lecturers utilize industry and school contacts to enable students to see technology and technology education in action. As only one visit is usually possible, lecturers are frequently concerned that students do not see the entire production and can be given the wrong impression of the process. For this reason, they were keen to develop a way where students could watch and partake in the entire process without spending considerable lecture time on travel. The center supports Hansen and Lovedahl’s (2004) notion that “we teach like we were taught” and that new technology teachers will tend to organize and teach their courses using models similar to the programs they completed. For this reason, they prefer students to be actively involved in their learning, allowing them time to investigate and solve problems, design and make products, and plan for implementation of the technology curriculum.

Eltis (1995) wrote, “It is essential that courses include opportunities for students to work directly with the most recent curriculum materials and gain experiences in how to implement them” (p. 97). This linking of theory and practice is critical to teacher education as noted in a report to the New South Wales Ministry of Education, where it is stated that poor teaching models have been a criticism of many
teaching programs (Ministerial Advisory Council on the Quality of Teaching, 1998).

Literature Review

In 1999, the New Zealand Minister of Education spoke at a national technology conference of the need for pre-service providers to change their programs and delivery. He stated research had found first-year teachers did not feel prepared and confident to teach technology (Smith, 1999). Morris, Armstrong, and Price (as cited in Rogers & Cardon, 2004) state that the current American teacher education system also fails to equip pre-service teachers for the realities of the classroom they will enter. Lecturers at the college believed a major problem for first-year teachers was that they had not seen technology in action, and yet, they were expected to implement a curriculum subject that they had not seen or even experienced as the child.

Student achievement was one of the key reasons for the new partnership between school and college. The school wanted better technology education for their year 7 and 8 children and the lecturers wanted to enable their college technology education students to see and be involved in true technology in action. Most lecturers had found that students rarely saw technology in action while on practicum and few had been actively involved in its delivery. Those students, who did become involved in a technology unit, often saw craft, applied science, or construction. Lecturers wanted students to have the opportunity to be involved in the teaching of “true technology” rather than be told how it should be taught. Hansen (1993) acknowledges this gap or dissonance between what students learn in the Faculty of Education classes and what they discover in the practicum. Rarely do teacher candidates or experienced teachers ever study alternative ways to view curricula. They are prepared for views of schooling and curriculum that currently exist rather than to envision alternative and perhaps better systems of schooling and curricula (Klein, 1992). The International Technology Education (2002) wrote, “recent studies on learning [found] that many students learn best in experiential ways by doing rather than only by seeing or hearing” (p.5). As Rogers and Cardon (2004) point out, “The need for context-rich educational experiences in teacher preparation is important in all teacher education, but is imperative in the field of technology education. Technology education demands a co-mingling of theory and practice” (p. 46). Students need to have experiences which have practice linked with theory. It is equally important, however, that their teachers also have this opportunity.

Hansen (1993) stated the case for revising technological education programs, while Brown (1993) wrote of the need to share our insights into approaches to technology teacher education. Hansen and Lovedahl (2004) stated by sharing such findings, “the hard-earned knowledge can assist others with the practices that helped and hindered the organisation and faculty” (p. 27). Stein, Smith, and Silver (1999) identified how little has been written about “the changes that are required of professional developers as they make their practices more responsive to the demands of the current reform era” (p. 238). Although the lecturers in this case study had a theoretical base of technology education, they lacked the personal experience with the pedagogical base. This undertaking would provide them with current experiences from which they could draw from for lecturing and, as such, would also serve as professional development.

Butler (1996) wrote not of the changes that are required by the professional developers but of the changes they undergo and encounter. He wrote of a yearlong professional development study completed by university staff. Initially, the staff was focused. As the program developed the staff became negative, discouraged, and did not perform as well. Over time, the performance improved, understanding advanced, and the experience was perceived as positive. Butler (1996) and Fullan and Stregalbauer (1991) referred to this apparent regression as an “implementation dip.” During this time of development, the staff can often become negative and despondent. Butler (1996) noted, “If the learning event is intended to be transformational, then there must be a period when the participants are unsettled, wondering and challenged” (p. 275).

Claxton and Carr’s (1991) found two “dips” in mood. People fluctuate from a negative to a positive, then back to negative, and finally to a positive attitude as the change is accepted and becomes part of everyday practice. It is important to acknowledge these mood swings when researching people’s attitudes to a new situation or time of learning.

Methodology

Partnership Background

A “full primary” school (teaching 5-12-year-old children) had not been satisfied with an earlier provider and started looking for alternative technology education for its year 7 and 8 children. The school approached a neighboring college of education and a partnership was established.
Six college technology education lecturers volunteered for the program. Staff members participating in the program were primarily doing so to better help their students learn and for their own professional development. All 6 lecturers had previously taught technology education to groups and classes of children. However, not one had taught technology education to this age group on a regular basis. Two of the lecturers had been out of the classroom for over 15 years, well before the inception of the technology curriculum. This was a considerable undertaking for staff as they were developing an approach for the implementation of the technology curriculum and committing themselves to the program for an entire year (Fullan & Streehalbauer, 1991; Treagust & Mather, 1990).

The 6 lecturers were paired to maximize their strengths. Two lecturers with science and electronic backgrounds taught electronics and control (Team A). Two lecturers with design and materials expertise taught materials and structures technology (Team B), and two with food and biotechnology expertise taught these technological areas (Team C).

On Wednesday mornings, 56 year 7 and 8 children walked over to the college to be taught technology education. The two composite (mixed) year 7 and 8 classes were divided into 3 groups. One of these was comprised of the year 7’s and the other 2 of the year 8 children. This grouping allowed a lower class ratio, which Barlex (1994) stated was critical for success.

Each lecturing pair taught a series of 6-8 sessions to each group of children. The three classes of children rotated around each set of teachers. The method of delivery was decided by the lecturers. A case study approach was used as this project was a unique event that would provide rich data that might suggest themes for more intensive investigation and allow deep analysis of the many phenomena that make up an activity (Burns, 1990; Yin, 1994). MacPherson, Brooker, and Ainsworth (2000) argued that “case study approaches are significant research tools because of their ability to gain rich understandings of teaching practice and school contexts” (p. 50). This case study investigates the views of the lecturers during the first year they were involved in the delivery of the technology program to the year 7 and 8 children. It records their reactions with and to the other stakeholders of the partnership. This interaction between stakeholders “is a salient point in the characteristics that case studies possess” (Tellis, 1997). This study forms part of a larger case study examining and evaluating the program as a whole. The lecturers’ views are only referred to for the purposes of this article. It is, however, important to note all stakeholders stated the program was very successful and the program continued the following year.

The researcher had “active membership” (Adler & Adler, as cited in Neuman, 1997, p.345). This is because the writer was one of the lecturers teaching the children and also researcher of the program and partnership. As these roles had potential to cause problems and raise ethical issues, consent from the stakeholders involved was necessary and the differentials in the relationship were discussed with all participants (Bell, 1992; Neuman, 1997; Snook, 1998; Walker, 1974). The practice of reflexivity (Carr &

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**Figure 1**

Model of Learning Curve Showing the “Implementation Dip”

**Perception**

- Learning as positive
- Learning as negative

**Time**

Confusion, uncertainty, challenge,
Table 1
Questions from the Initial Questionnaire

1. Did you volunteer to be part of this program?
2. What do you perceive as your role in this partnership?
3. What are your expectations of this partnership?
4. What do you think are key aspects of a successful technology education program?

Table 2
Interview Questions

1. How do you feel about the partnership between the two institutions, so far?
2. Before the program started what were your expectations of those involved?
3. How did you expect the program to “run”?
4. Did the first 6 sessions meet your initial expectations?
5. On the whole do you think the first six sessions have been effective?
6. How has it differed from what you expected to occur?

Kemmis, 1986; Delamont, 1992) was used to enhance the validity of information gathered. As the sample size is small and the relationship between researcher and participant is frequent and close, the possibility of bias must be taken into account (Borg, Gall, & Gall, 1993; Hammersley & Gomm, 1997). Active membership allowed knowledge and understanding to be accumulated. It increased “the ease of establishing rapport and trust and the opportunity to acquire ‘subsidiary awareness’ and ‘tacit knowledge.’” One would expect these factors to affect both the quality of the data and accuracy of the interpretation” (Pollard, 1985, p.95).

Case studies are typically built up from multiple sources of data (Haigh, 2000; MacPherson, Brooker & Ainsworth, 2000). With a goal to reveal the participants view of reality (Lather, 1992), descriptive approaches such as interviews, observation and questionnaires were used for much of the data gathering. All meetings with lecturers to plan the program and evaluate the progress were taped in a “natural setting” (Lincoln & Guba, 1985) and later transcribed.

At the start of the program, lecturers were given a questionnaire to ascertain their goals and expectations from the partnership. Table 1 lists these questions. While a criticism of questionnaires is often that they elicit shallow responses (Haigh, 2000), additional questioning relating to the questionnaire in a later interview strengthened this data.

At the end of the first six weeks of the program, lecturers were individually questioned via a semi-structured interview (Hitchcock & Hughes, 1989) to identify issues that were present at this stage. The interview protocol allowed for the initial set of questions to be presented in non-standardized ways or in a different order depending on the participants. Table 2 outlines the initial interview questions. Lecturers were asked on-going follow-up questions, thus providing an opportunity to verify the data being recorded (Lincoln & Guba, 1985). The interviews later formed an interactive dialogue with opportunities for both the researcher and participant to ensure a shared understanding (Lather, 1992).

Lecturers were asked to complete another questionnaire at the end of the program to establish their feelings towards the program’s success. Table 3 lists the questions from the final questionnaire.

Lecturers also volunteered to be individually interviewed again, at this point, to consolidate the researcher’s views of the program. As an interpretative researcher working with descriptive data, the focus was on the quality of the insight from people involved rather than the number holding the view (Haigh, 2000). Emergent trends were discussed with participants.

Table 3
Questions from the Final Questionnaire

1. How did you feel the second cycle went compared to the first cycle?
2. Had you done anything that made it more effective? If so what?
3. Where there any things that made it less effective than the first cycle? If so what?
4. Do you think you taught Technology education, in keeping with the philosophy of the document? Why?
5. If this program continues next year how might you teach it order to best keep with the philosophy of the document?
6. Will you volunteer to teach this program next year? Why?
Examples of Teaching Units

One teaching pair (Team B) decided to team-teach. This meant there were two lecturers with the group of children at all times. As the class had just completed a weather unit, this pair developed a unit on wind vehicles. These varied in design but were basically 300 mm land yachts (similar to a racing car with a sail for propulsion).

The second teaching team (Team C) team-taught but split the teaching between before and after morning tea. This was because one of the lecturers had a pre-service teacher education class part of time when the children were at the college. Some topics were the same as the second lecturer continued on from the morning session. Other sessions were quite distinctly different. Initially, the pair got the children to make a healthy snack for an upcoming class camp. Later, one lecturer got the group to investigate the problem of childhood obesity. Children made games, promotional material, etc.

The third team (Team A) did not teach together, but rather one lecturer taught a topic and then the second lecturer built on this knowledge. One lecturer let the children make anything they wanted as long as it was made with electronics. An interesting observation was that the girls all wanted to make doorbells for the bedroom. They expected their brothers, sisters and parents to buzz the bell and wait before entering. Therefore addressing a natural need for privacy at an age when their bodies are beginning to change and they are very self conscious. The boys on the other hand all wanted to alarm an assortment of items such as lunchboxes, pencil cases, desks and bedroom doors.

Findings

Initial Expectations

Initial expectations are included because they can have a strong influence on attitude, learning, and success of the program and those involved (Burns, 1992; Eley, 1998; Medway, 1989; Owens, 1998). Lecturers had high expectations for the program and the partnership. The middle column in Table 4 lists these. Lecturers believed the children would be the major beneficiaries. One stated they would be “expanding previous ideas of technology for these children,” while another stated they hoped to provide “quality education to the school children.” Lecturers were confident in their knowledge of the curriculum and felt they could competently teach technology to a high standard. Lecturers’ comments included “students would benefit from the time they had with us,” “I expected the children to really achieve,” and I “expected the children to be rapt with the subject.”

The lecturers also hoped the school would form a partnership that would be mutually beneficial. They hoped they “could collaboratively plan activities and work closely together to achieved desired outcomes,” provide “a collaborative link for technology education and the school,” and “the teachers would have in fact established some sort of connection with us.” They hoped the partnership would be an opportunity for professional development in technology education for the entire school staff, thus “reinforcing the technology program” in the school. One lecturer wrote, “I wanted to see a close relationship with the school, teachers and parents to support a quality approach to the children’s education.”

The lecturers were keen to develop a role model for college students who were having difficulty seeing quality technology education while on practicum. They also hoped to provide an alternative model for other provider schools. One lecturer admitted, “I guess we all thought we could set up a model for others to follow.”

Lastly, the college lecturers hoped they would personally gain from the partnership. Comments about “looking forward to getting back to working with children,” “developing ideas alongside children,” and being keen to “trial ideas which we are teaching our teachers” are a few supportive quotes. Currency and credibility where other strong motivators for the partnership. They felt it was “important that College of Education staff can operate competently in the classroom.” Comments such as having the opportunity to “gain credibility with college students and practicing teachers,” being able to “put our money where our mouth is,” and “my practice here at college gained some validation” were common. One also stated he/she “would enjoy myself actually and have some fun.”

Data was collected over the course of the entire program. Questionnaires, interviews, and anecdotal evidence were combined in order to form a picture of how the teaching team was finding the program. Trends became evident and findings have been grouped into the initial set-up (months 1-3), second rotation of children (months 3-5), end of first semester for college (months 5-6), and at the conclusion of the year’s program (end of year).

Months 1-3. For the first few weeks the lecturers appeared to be generally excited and positive towards the program. Corridor chat focused on what was done and said with and by the children. The dual role of the researcher as participant and observer allowed an insight into the group’s attitudes throughout the process and not just at the key interview and questionnaire times.

As the term progressed, it became apparent that the expectations for the program and the partnership were going to be difficult to meet. The lecturers would
lecture the theory and ideals of teaching technology education and could within half an hour of the college lecture be faced with the realities of teaching children. They tended to expect the perfect situation and became frustrated when it did not occur. One lecturer stated, “the program we are running doesn’t bear too much resemblance to an ideal technology education situation.”

During this time lecturers commented on the following:

- The children had expectations of a traditional style of delivery and different teacher expectations of behavior. One lecturer stated, “I have had to deal with…. negative attitudes.” Another stated, “I’ve been very disappointed with the calibre of the students in their attitude towards their work. I wonder whether this is general with them or whether they developed an attitude towards technology last year in their experience at their other school that has carried through.”
- Dealing with poor behavior initially proved difficult. Lecturers said, “their behaviour in class is below the expectation I have and I don’t think that’s because I’ve been out of the classroom for a while” and “interpersonal rivalry and friction (between children) seems to simmer away under the surface and I felt that’s got in the way.”
- The lecturers had to match the college and school timetables. All classes had to finish at exactly the same time even if they were half way through a task. Later, this was altered and the children stayed at the college for their interval play.
- Integration of the program into the classroom was not possible as the lecturers had children from two different classes. The lecturers could not easily address other learning needs they identified (e.g., letter writing, cutting skills, spelling) One lecturer said, “If I had one dream, that was for technology education to be embedded rather than an add on, which I feel it still is.” Another commented, “There’s not the opportunity to actually extend or develop or broaden some of the work we do because of the nature of the time constraints.”
- Within half an hour of teaching the children, a lecturer could be teaching adults in the same room. This meant not only changing delivery style but also the resources and physical environment. One lecturer stated, “I think we obviously had difficulties in …children coming from the school, being here and being in our classroom compared to say adults, and having the equipment necessary, when we needed it and so on.”
- Absences and interruptions caused one lecturer to state, “because of their broken time with me, we didn’t actually achieve what we hoped for.”
- Poor communication between the college and school at times left lecturers waiting for students and projects that did not arrive. Children frequently arrived without books or writing materials. The classroom teacher rarely reminded the children of their technology homework or extra tasks. This was commented on by many of the lecturers. One stated, “sometimes children didn’t always remember to bring their resource books with them.” Another mentioned the importance of “ensuring the children turn up with their books, sheets and all those things we rely on so much for a continuity of learning.”

Months 3-5. After 2 months, the lecturers swapped children and got another group. Most lecturers chose to teach a revised and modified version of the activity taught previously. It was at this stage that lecturers found they were “getting on top of some of the issues.” Lecturers at this point noted “it is still a challenge” and “it is improving.” Lecturers became familiar with the children and program and developed strategies to assist with some of the issues identified above. They stated clear expectations to the children. The lecturing group started meeting at intervals to discuss progress. This increased communication helped develop consistency as the children rotated lecturers every six weeks. The increased collegiality helped the lecturers gain confidence, as many problems encountered were common to all.

Months 5-6. After 5 months, the lecturers were a lot more positive about the partnership. They were now familiar with the program and able to adapt planning to suit that of the children and their needs. Lecturers were more relaxed at the end of 6 months and were able to allow the class more freedom. One lecturer stated, “we are enjoying the children immensely.” This increased their confidence as they felt they were teaching “better technology.” Many lecturers mentioned how much they had learned. There was a sense of achievement. They were aware that many of their initial expectations had not been met, but they were able to accept that change would take longer than first anticipated. One lecturer stated, “we are achieving some great things.”

End of the year. At the end of the program, lecturers were asked about how their expectations had been met. Initially, they had hoped college students would watch and support them in their teaching. This had only occurred for a handful of students. Lecturers
Some lecturers commented on the increase in their credibility with their peers: “It’s opportunities for us to walk the talk.” Table 4 compares issues raised by the lecturers at the end of the first year of the partnership with their initial expectations. Arrows indicate where lecturers’ expectations have been achieved. This table clearly shows that expectations for themselves and for the children had been met, while those for others had not. The expectations where lecturers had least control had not been met. Reasons why this may be the case are outside the realms of this study.

Discussion

Comments lecturers made in the first few months indicated that they were less positive about the program than they had been in the first few weeks. This apparent regression is quite common. As Fullan (1991) stated, “It is more likely that our competence actually decreases during first attempts at trying something new” (p.318). When comparing the results from this study to those of Butler (1996), it is evident that the lecturers progressed through an implementation dip in their development of the program (see Figure 2). It was interesting to note that many lecturers referred to the first six months as being a “big learning curve.” The staff member who had “been out of teaching” for the longest period of time found it the most difficult and took many more months before positive comments were made.

The problems lecturers identified in the first 3 months were children’s attitude, poor behavior, timetables, integration, absences, and poor communication. There are similar problems identified by New Zealand secondary technology beginning teachers, who stated discipline, classroom management, lack of students’ motivation, and acceptance of low standards of work as major frustrations within the first six months of teaching (Mawson, 1998). They differ markedly with the results from a questionnaire sent to 10% of all New Zealand schools, which found that the most common challenges facing teachers implementing the technology curriculum were the difficulties with resourcing, equipment, finding time, and coming to grips with the new curriculum (Ministry of Education, 2003).

Although there were times when the program appeared a challenge to the lecturing staff, all identified some positive aspects. After the first few months, these started to be recognized by all involved. Bell and Gilbert (1994) acknowledged the importance of attending to three aspects of teacher development: personal, social, and professional development. The attributes the lecturers felt they were gaining from the program can be categorised into these three groups. They had worked with other lecturers (social...
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<th>Initial Expectations</th>
<th>Lecturers’ Responses</th>
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<td>College</td>
<td>▪ College students witness technology in action</td>
<td>▪ Few college students watched and or helped with lessons</td>
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<td>▪ Demonstrate to college students that Technology education is able to be taught</td>
<td>▪ Real examples able to be given to college students</td>
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<td>Children</td>
<td>▪ Child centered activities</td>
<td>▪ Child centered activities</td>
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<td></td>
<td>▪ Children excited about technology</td>
<td>▪ Excited children</td>
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<td></td>
<td>▪ Receive quality technology education</td>
<td>▪ Quality technology education</td>
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<td></td>
<td>▪ Better projects</td>
<td>▪ Increased enjoyment</td>
</tr>
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<td></td>
<td>▪ Main beneficiaries</td>
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</tr>
<tr>
<td></td>
<td>▪ Build on prior knowledge</td>
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<tr>
<td>School</td>
<td>▪ Collaboratively plan activities</td>
<td>▪ No collaborative planning</td>
</tr>
<tr>
<td></td>
<td>▪ Work with whole school as team</td>
<td>▪ Little working with school</td>
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<tr>
<td></td>
<td>▪ Teachers establish connection with the college</td>
<td>▪ Small groups use college facilities later in year</td>
</tr>
<tr>
<td></td>
<td>▪ Collaborative link to assist with new curriculum</td>
<td>▪ Only one year 7/8 teacher observed the technology program.</td>
</tr>
<tr>
<td></td>
<td>▪ Up-skill teachers in understanding technology</td>
<td>▪ Limited interaction with parents. Many hours spent on web pages to achieve this.</td>
</tr>
<tr>
<td></td>
<td>▪ Help with planning of technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Support existing programs within the school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Involve parents and the community</td>
<td></td>
</tr>
<tr>
<td>Technology community</td>
<td>▪ Role model for college students</td>
<td>▪ Few students looking at practice</td>
</tr>
<tr>
<td>Program</td>
<td>▪ Role model for year 7/8 providers</td>
<td>▪ Not seen as role model for other providers</td>
</tr>
<tr>
<td></td>
<td>▪ Integrate what is happening in classroom</td>
<td>▪ Not integrating into classroom</td>
</tr>
<tr>
<td></td>
<td>▪ Interactive</td>
<td>▪ Repetition of lessons an advantage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Mixed response of achievement of program</td>
</tr>
<tr>
<td>Self</td>
<td>▪ Gain credibility with college students</td>
<td>▪ Improvement in credibility with college students</td>
</tr>
<tr>
<td>(College lecturers)</td>
<td>▪ Trial new ideas and theories</td>
<td>▪ Trial new ideas and theories</td>
</tr>
<tr>
<td></td>
<td>▪ Gain experience with teaching year 7/8</td>
<td>▪ Gain experience with teaching year 7/8</td>
</tr>
<tr>
<td></td>
<td>▪ Gain experience in new tech. area</td>
<td>▪ Gain experience in new tech. areas</td>
</tr>
<tr>
<td></td>
<td>▪ Gain experience in teaching technology education</td>
<td>▪ Gain experience in teaching technology education</td>
</tr>
<tr>
<td></td>
<td>▪ Have fun</td>
<td>▪ Have fun</td>
</tr>
<tr>
<td></td>
<td>▪ Working with children</td>
<td>▪ Working with children</td>
</tr>
<tr>
<td></td>
<td>▪ Be able to discuss success of new ideas with classes</td>
<td>▪ Be able to discuss success of new ideas with classes</td>
</tr>
<tr>
<td></td>
<td>▪ Gain credibility with practising teachers</td>
<td>▪ Work in a “real environment”</td>
</tr>
<tr>
<td></td>
<td>▪ Stay current</td>
<td>▪ Working with others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Practise planning and delivery ideas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Improved collegiality within center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Revisit teaching skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Learning through observation, talking, and trialling</td>
</tr>
</tbody>
</table>
development); tried new ideas and changed classroom activities and techniques (professional); and challenged themselves and how they felt about technology, teaching, and the program (personal). The lecturers in this program were keen to continue the learning and work with the children in the new program. Lecturers commented on their professional development by gaining confidence and experience, learning and attempting new ideas and techniques, and noticing the increase in collegiality. Factors that are content-centered (intrinsic aspects of teaching) contribute most powerfully to teacher satisfaction (Wright & Custer, 1998). Research also shows these intrinsic motivators are the most potent (Conners, 1991).

Advice for Institutions Contemplating a Similar Program

This case study outlines the issues lecturers faced in developing and trying a new program and offers the following recommendations for any similar future programs. This study indicates that lecturers attempting new strategies experience an “implementation dip,” or “big learning curve” as described by many lecturers in this study. Implementation was challenging for this team. Early stages could result in people giving up; particularly if they are unaware this is a normal process. Encouragement and support through this dip and towards successful implementation is necessary to revive passion and commitment. Those who have been away from teaching for a long period may benefit from shadowing a specialist teacher or working with the children in their home room class, so they can learn about expectations, abilities, behavior management strategies, etc. Collegiality is a critical part of any program’s success (Bell, 1994; Cowley & Williamson, 1998; Fullan, 1990; Rennie, 1997). This was particularly important during the “implementation dip” (Butler, 1996). A break for staff to gather at morning-tea time, while the children were monitored at play, was included. Staff found this very beneficial. It allowed sharing of ideas, time to voice concerns, and a time for team building. Fullan (1991) stated, “If the individuals try to put the ideas into practice, there is no convenient source of help or sharing when problems are encountered. It is hard to be a lone innovator” (p. 317). Although it may appear to be a superficial part of the program, collegiality is a key component and, as such, needs to be planned for to ensure this vital attribute to the new program occurs.

Lecturing staff need to be reminded to restrict their expectations to factors which they can control. Wright and Custer (1998) referred to numerous researchers’ findings which link external control and job satisfaction. Many lecturers were frustrated by not achieving their expectations related to working with the
school, college, and the technology community. They were, however, very pleased with what they had gained personally, socially, and professionally.

The program needs to empower the participants. It would help if they were volunteers and feel part of the group. They should feel their contributions are valuable to the program and are able to negotiate the content of the program. This will allow them to determine the pace and nature of the changes and feel the program the benefits of the program. The importance of this was identified by Bell and Gilbert (1994) as being a key aspect of any teacher development program.

The staff involved in this program had a great deal to do with its success. The participants were all current technology lecturers who were passionate in their desire to see the technology curriculum delivered effectively. Hargreaves (1998) stated the following:

Discretionary commitment is found where teachers are positively engaged with their work. It is a predominately emotional phenomenon in terms of the passion that teaches have for their work….the emotions of teaching and teacher development are, in this sense absolutely central to maintaining and improving educational quality in our schools. (p. 1)

Each staff member volunteered for the program and knew that they were committed to it for the entire year, this meant when things got difficult, they had to keep going and find a solution (Fullan, 1990).

Furthermore, the program must have the support of the institution’s hierarchy. In this study, the management of both school and the college made it clear that they were behind the project one hundred percent and were prepared to provide support. Wright and Custer (1998), in a study of outstanding technology teachers in the United States, found that “lack of understanding and support of technology education by administrations/counsellors” was the third most frequently cited, frustrating aspect of their jobs (p. 12). The parents, staff, and pupils of the school showed that they valued the program and the efforts made by the lecturers. One of the two main recommendations outlined in Wright and Custer’s (1998) study involve, “educating the public (and school personal) about technology education” (p. 19). Wright and Custer also found the most frequently cited frustration was “lack of funding for equipment, supplies and facilities” (p. 8). This was not the case with college staff as they had access to excellent facilities and resources. The technology spaces at the college were new and purpose built and rated amongst the best in the country.

Conclusion

This study shows that with goodwill from all stakeholders interaction between primary and tertiary institutions can have benefits for all. The program outlined above included staff who were committed, supportive, and passionate. They had the support of the college, school, community, and their colleagues. The program allowed a degree of autonomy to the staff without putting them in a highly visible and threatening position. The program has allowed staff to bridge the ever important “theory/practice gap,” which Rogers and Cardon (2004) stated is a “key component of this educational reform is technology teacher education faculty versed in both practice and theory” (p. 46).

Hansen and Lovedahl (2004) wrote of the critical need for higher education faculties to unite and utilize knowledge and skills to create a new future for preparing teachers. They noted, “Improving technology teacher education programs requires several coordinated efforts that leverage our collective experience and wisdom” (p. 27). They stressed the importance of technology education programs “sharing their wisdom and ‘lessons learned’” (p. 27).

Even though technology lecturers are strong on theory and have ideas of how this can be implemented, doing so is another matter entirely. Anecdotes from this experience have proved invaluable to lecturers who are now able to add a realistic, personal dimension to their lectures. It is hoped this paper will encourage other institutions to attempt similar projects and to profit from the lessons learned.

References


Bell, B., & Gilbert, J. (1994). Teacher development as professional, personal and social development. Teaching and Teacher Education, 10(5), 483-497.


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“Did I Just Share Too Much Information?”
Results of a National Survey on Faculty Self-Disclosure

Kevin Simpson
Concordia University

How widespread is the use of personal self-disclosure by faculty in the college classroom? Employing a national survey of teaching faculty within liberal arts schools and smaller colleges and universities, the incidence of self-reported faculty self-disclosure was investigated. Teachers ($n = 430$) provided responses reflecting the content and context of self-disclosure in instructional and mentoring roles. Response data revealed few differences in self-reported self-disclosure across several key background characteristics such as teaching discipline, teaching experience, class size, or class level. ANOVAs revealed significant differences on two specific variables: Self-disclosure was less frequently reported by those with the lowest tenure status and more frequently reported to occur during longer class sessions. Implications of these findings for teaching practice and future research are also discussed.

To chart that (teaching and learning) landscape fully, three important paths must be taken—intellectual, emotional, and spiritual—and none can be ignored. Reduce teaching to intellect, and it becomes a cold abstraction; reduce it to emotions, and it becomes narcissistic; reduce it to the spiritual, and it loses its anchor to the world. Intellect, emotion, and spirit depend on one another for wholeness. They are interwoven in the human self and in education at its best.

Parker Palmer (1998, p. 4)

The weaving together of the intellectual pursuits of the college classroom with emotional aspects of learning is often limited to specific coursework that requires personal introspection. Although the majority of formal learning typically occurs in the classroom, there are well-documented examples of learning in the socioemotional domain that occur outside of the traditional walls of the academy (Astin, 1992; Liff, 2003), yet still under the rubric of higher education. One example of this type of learning, the interpersonal, enjoys recognition among those who advocate for learning opportunities that create an affective climate of learning that often extends the topical content of a given course (McKeachie, 2002). The task of identifying the elements required to create such a climate is daunting, but a clear pattern has emerged in the literature: Instructor self-disclosure as a tool for eliciting greater student participation shows promise (Fusani, 1994; Goldstein & Benassi, 1994; Sorensen, 1989).

Early research into self-disclosure across numerous types of interpersonal relationships revealed a strong and consistent pattern of reciprocation and mutual trust as foundational elements (Cozby, 1973; Jourard, 1971). More recently, much of the related research has investigated student perceptions of real and simulated teacher statements of self-disclosure (Bjornsen, 2000; Collins & Miller, 1994; Sorensen, 1989) and the relation of these disclosures to student in-class participation and ratings of teacher effectiveness (Goldstein & Benassi, 1994, 1997; Nussbaum, Comadena, & Holladay, 1987). From the perspective of the teacher, the interpersonal encounters that support and augment classroom time are often difficult to quantify.

Studies involving instructor self-disclosure tend to center on the primary intent of clarifying course content. Often, the information revealed through these disclosures also broadly reflects teaching and educational experiences, and information pertaining to family and friends, beliefs and opinions, and personal problems (Downs, Javidi, & Nussbaum, 1988; Javidi & Long, 1989; Liddle, 1997; Nussbaum, Comadena, & Holladay, 1987). Collins and Miller (1994) acknowledged that although self-disclosure is generally unusual and rare, positive student perceptions of the class and teacher are created when these disclosures do occur.

A number of studies have investigated simulations of teacher self-disclosure in the classroom. Javidi and Long (1989) used broad categories of humor and personal narrative as self-disclosure across a narrow range of teaching experience. Sorensen (1989) identified a checklist of “good teacher” disclosures based on student perceptions of simulated teacher statements. This checklist served to further quantify the depth and breadth of disclosure behaviors but did little to provide examples of real disclosive statements actually used by teachers. More recently, Wilson and Taylor (2001) used the instructor behavior of immediacy as a form of self-disclosure (e.g., sharing with students personal experiences and information) as a dependent variable, finding that student motivation...
and evaluation of the instructor positively correlated with immediacy behaviors and instructors’ attitudes toward students (e.g., genuine concern expressed for students). Taken together, these studies have made good use of analogues of self-disclosure without sufficiently investigating whether the actual self-report of experienced teachers who reveal aspects of their personal selves and experiences is consistent with this body of work. In fact, Goldstein and Benassi (1997) speculated that teacher self-disclosure may also be a function of course content and the specific content of the disclosures shared.

Studies that have attempted to use more objective measures of self-disclosure in the college setting are few in number and present mixed findings. Wambach and Brothen (1997), using direct observation of teacher self-disclosure, found no relationship to student participation, except in two specific instances: providing students with tips on completion of an assignment and academic acculturation. Goldstein and Benassi (1997) countered that this contradictory finding may represent a gap in the literature whereby instructor self-disclosure may be more a function of variables such as the content of the self-disclosure itself and related course content areas. Myers (1998) recommended that future research involving the use of self-disclosure in the classroom should consider class size, course subject, and instructor variables as influences on the breadth and depth of in-class self-disclosures elicited by student and professor alike. Others have recognized the practical importance of the timing, amount, and tone of self-disclosures in the teaching role, while acknowledging that little is known beyond student perceptions of the value of these disclosures to course information, rates of participation, and teacher effectiveness (Cayanus, 2004; Downs et al., 1988; Knox & Hill, 2003; Liddle, 1997; Sorensen, 1989). Thus, how to determine the appropriate level, content, and depth of self-disclosure in the role of instructor remains an empirical question.

This study extends the work of Goldstein and Benassi (1994, 1997) and others (Javidi & Long, 1989; Sorensen, 1989) by delving more deeply into respondent background characteristics which may have a bearing on the use of self-disclosure as an instructional tool (Cayanus, 2004). Additional inquiry is also needed regarding the type of student contact the faculty member has encountered while revealing either personal or professional self-referent information and whether the nature of a teacher’s self-disclosures is planned or spontaneous. In an attempt to measure the impact of these instructor interpersonal behaviors, I gathered normative and inferential data regarding college faculty members’ self-disclosure behaviors in the professional role of teacher. For the present study, self-disclosure is defined as the personal and professional revelations made by a teacher while in the teaching and mentoring roles. I also examined the associations between the self-reported self-disclosure behaviors of teaching college faculty members and select background characteristics such as sex, age, faculty rank, professional discipline (general and specific), teaching experience, and degree and tenure statuses. Lastly, I examined the associations between the nature of these same role-specific self-disclosure behaviors and institutional and class factors (i.e., school classification, class size, course level, and typical session length).

Method

Participant Schools

A random selection of 112 colleges and universities in the United States from a comprehensive listing of 629 schools categorized through the Carnegie Classification of Institutions of Higher Education (Carnegie Foundation for the Advancement of Teaching, 2000) provided the initial study selection group. Using a stratified sampling technique (with computer-generated numbers), I selected schools in proportion to their relative representation among the three categories of interest to the researcher (17.8% of total). These categories included the following Carnegie classifications: Masters II (n = 19; fewer than 20 master’s degrees awarded annually), Baccalaureate-General (n = 40), and Baccalaureate-Liberal Arts (n = 53). I excluded from the sample institutions that grant the doctoral degree, award more than 20 master’s degrees annually, those that reside outside of the United States, and for-profit schools (e.g., Carnegie Research I and II institutions), as the primary focus of this study centered on investigating teaching faculty self-disclosures in smaller colleges and universities where student-faculty interaction is greatest (Pascarella & Terenzini, 2005).

Questionnaire

Previous research on teacher self-disclosure and accepted classification taxonomy guided the creation of specific questionnaire items and methods for data collection (Downs et al., 1988; Goldstein & Benassi, 1994; Javidi & Long, 1989). An important point of departure involved the use of a survey items intentionally designed to capture the broad range of possible experiences and demographic characteristics contained in the national target sample. Specific variables of interest included respondent characteristics such as faculty rank, tenure status, institutional size, class size, and time spent in the teaching role (among others); content of the self-disclosures (i.e., personal
and professional); and types of student contact compared against the nature of the disclosures (i.e., planned vs. spontaneous). Faculty responded to a total of 21 items pertaining to the personal and professional content of their self-disclosures and 9 items asking about the timing and type of student contact the faculty member has encountered while revealing either personal or professional self-referent information (see Table 2 for specific self-disclosure items). Except for questions designed to measure background characteristics, one categorical item pertaining to the planned nature of one’s self-disclosure behaviors, and one open-ended question about the relative “usefulness” of self-disclosure in the teaching role, all items were rated on a 7-point scale ranging from 1 (very unlikely) to 7 (very likely).

Procedure

The questionnaire packets were distributed during a two-week window at the close of the Fall 2003 semester using first-class mail. Each packet contained four copies of the study questionnaire, a letter of invitation and consent, a pre-addressed, postage-paid return envelope, and a small address card for requesting study results. All departments in the arts, humanities, social sciences, physical science and the natural sciences listed for each selected school in the survey were included, while excluding two specific departments with professional majors: business and engineering. It was requested that the respective departmental chairpersons distribute the four surveys to corresponding faculty members at their discretion. Although an exact participation rate could not be determined (due to unknown rates of distribution by department chairpersons), the estimated return rate of 12% (n = 430) appeared to be within acceptable limits (with a 4.5% sampling error), providing a sample that exceeded a minimum standard based on population size as noted by previous research (Punch, 2003).

Results

Teacher Characteristics

The sample was restricted to smaller colleges and universities according to the Carnegie Classification System for Institutions of Higher Education (Carnegie Foundation for the Advancement of Teaching, 2000). Respondents included 430 faculty members who returned completed surveys. This procedure resulted in a fairly balanced sample representing typical baccalaureate-liberal arts schools (n = 162, 37.7%), general baccalaureate schools (n = 160, 37.2%), and master’s of arts institutions (n = 108, 25.1%). The mean age range for the respondents was between 45 and 54 years with 61.2% of the sample identifying as male (n = 263) and 37.9% as female (n = 163). “Teaching experience” was dichotomized into two subgroups: “current school” and “overall.” These categories included “Fewer than 2 years” (current = 16.7%, overall = 4.4%); “3-5 years” (current = 19.8%, overall = 11.9%); “5-9 years” (current = 17.7%, overall = 20.9%); “10-14 years” (current = 15.1%, overall = 20.0%); and “15+ years experience” (current = 30.7%, overall = 42.6%). Other respondent characteristics such as highest degree attained, faculty rank, tenure status, professional disciplines represented, and institutional size appear in Table 1.

Content and Context of Faculty Self-disclosures

Response data for the faculty respondents according to four specific questions pertaining to the content of the self-disclosures (i.e., personal and professional) appear in Table 2. A fifth and final question pertaining to the nature of a teacher’s self-disclosures (i.e., planned vs. spontaneous) revealed a greater tendency among those teaching faculty who self-disclose to do so in a spontaneous, but intentional manner (n = 347, 80.7% of sample) rather than an spontaneous/accidental manner (n = 38, 8.8%) or in a strictly planned manner (n = 34, 7.9%). There also was a tendency for respondents to disclose information related to professional experiences (M = 4.63) rather than personal events and experiences (M = 4.29).

Between-subjects ANOVAs were calculated for all interaction variables of interest (total = 11, p < .05). Reported personal self-disclosure according to tenure status showed significance, F(1, 429) = 5.29, p < .001, with the faculty rank of “instructor” (non-tenure track) being less likely to report self-disclosure than all other full-time ranks. The reported personal self-disclosure according to class length also showed significance, F(1, 429) = 2.31, p < .03, with faculty reported self-disclosure being more likely to occur during a longer class session. No other associations were found between reported personal self-disclosure and the following background characteristics: teaching discipline, school type, class level (upper vs. lower division course), teaching experience, and class size.

Discussion

The survey results presented here represent a highly representative sample of teaching faculty, across a broad range of disciplines, teaching experience, and teaching rank. Teaching faculty members who responded to the survey appear to freely share of themselves, most often in a spontaneous, but intentional manner, with a tendency to disclose information related to professional rather than personal life. Further, these
Self-reported disclosures are most likely to be during a one-on-one academic contact; be reflective of one’s educational and prior teaching experiences; involve elements of humor (often self-deprecating); contain positive and personally satisfying data; and be consistent with a liking of the class and student present in the exchange. Conversely, the self-disclosures of these teaching faculty tend not to be pressured (by student or department), reflect one’s parenting practices and beliefs, be negative or dissatisfying in tone, nor reflect one’s colleagues as the content of the disclosure. In contrast, this latter finding describes well student perceptions of a “poor teacher” profile identified in earlier research (Sorensen, 1989) where instructors rated as “poor” by students tended to reveal inappropriate information about themselves and others, often at inopportune times. It appears that the current respondents tend to shy away from such disclosures, on average.

The present study also ruled out differences in self-disclosure across numerous discipline areas, ranking levels among tenured and tenure-track faculty, class size, and course levels (e.g., upper vs. lower-division courses). This finding suggests that the reported self-disclosure of teaching faculty may not be limited to a few professional disciplines where self-exploration may be more likely encouraged (i.e., psychology, humanities) nor to courses that may include greater numbers of students more intimately familiar to the small-college teacher.

Because teaching experience necessitates an increased familiarity with course content, it is not surprising to find teaching faculty identifying as “instructor” as less likely to self-disclose. In fact, such disclosures may present a perceived risk to a teacher

Table 1
Teacher Characteristics (N = 430)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest Degree Attained</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD</td>
<td>302</td>
<td>70.2</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>74</td>
<td>17.2</td>
</tr>
<tr>
<td>“Other”</td>
<td>31</td>
<td>7.2</td>
</tr>
<tr>
<td>EdD</td>
<td>13</td>
<td>3.0</td>
</tr>
<tr>
<td>JD/MD or PsyD</td>
<td>10</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Faculty Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professor</td>
<td>132</td>
<td>30.7</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>132</td>
<td>30.7</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>140</td>
<td>32.6</td>
</tr>
<tr>
<td>Instructor</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>Lecturer/Other</td>
<td>11</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Tenure Status</strong></td>
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<td></td>
</tr>
<tr>
<td>Full Tenure</td>
<td>199</td>
<td>46.3</td>
</tr>
<tr>
<td>Tenure-track, Not Tenured</td>
<td>120</td>
<td>27.9</td>
</tr>
<tr>
<td>Not Tenure-track, School Has Tenure</td>
<td>32</td>
<td>7.4</td>
</tr>
<tr>
<td>No Tenure System</td>
<td>79</td>
<td>18.4</td>
</tr>
<tr>
<td><strong>Professional Disciplines</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>183</td>
<td>42.6</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>37</td>
<td>8.6</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>62</td>
<td>14.4</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>122</td>
<td>28.4</td>
</tr>
<tr>
<td>“Other”</td>
<td>26</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Institutional Size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000 or Fewer Students</td>
<td>330</td>
<td>76.7</td>
</tr>
<tr>
<td>2001 to 6000 Students</td>
<td>83</td>
<td>19.3</td>
</tr>
<tr>
<td>6001 to 10,000 Students</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>10,000 or Greater</td>
<td>13</td>
<td>3.0</td>
</tr>
<tr>
<td>“None” Identified</td>
<td>2</td>
<td>0.5</td>
</tr>
</tbody>
</table>
Table 2
Context and Content of Faculty Self-disclosures (N =430)

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. I am more likely to reveal information about myself during:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A one-on-one academic contact with a student.</td>
<td>5.11</td>
<td>1.43</td>
</tr>
<tr>
<td>A one-on-one social contact with a student.</td>
<td>4.59</td>
<td>1.70</td>
</tr>
<tr>
<td>A group contact (primarily teaching/academic).</td>
<td>4.51</td>
<td>1.41</td>
</tr>
<tr>
<td>A group contact (outside-of-class contact).</td>
<td>3.99</td>
<td>1.56</td>
</tr>
<tr>
<td>B. I am likely to reveal aspects of my PERSONAL life that entail or involve:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifestyle choices (i.e. personal habits and practices).</td>
<td>4.26</td>
<td>1.70</td>
</tr>
<tr>
<td>Personal values and beliefs.</td>
<td>4.82</td>
<td>1.77</td>
</tr>
<tr>
<td>Hobbies and leisure pursuits.</td>
<td>4.90</td>
<td>1.57</td>
</tr>
<tr>
<td>Religious values and practices.</td>
<td>4.03</td>
<td>2.12</td>
</tr>
<tr>
<td>Political preferences and ideologies.</td>
<td>3.54</td>
<td>1.73</td>
</tr>
<tr>
<td>Current family information (e.g., marriage, children).</td>
<td>4.89</td>
<td>1.70</td>
</tr>
<tr>
<td>Family of origin information (past events/people).</td>
<td>4.49</td>
<td>1.64</td>
</tr>
<tr>
<td>Personal friendships.</td>
<td>3.63</td>
<td>1.63</td>
</tr>
<tr>
<td>Parenting beliefs and practices (if applicable).</td>
<td>2.94</td>
<td>2.48</td>
</tr>
<tr>
<td>My sense of humor (with self-as-object).</td>
<td>5.64</td>
<td>1.32</td>
</tr>
<tr>
<td>My sense of humor (&quot;other&quot;-directed).</td>
<td>4.33</td>
<td>1.61</td>
</tr>
<tr>
<td>Positive and personally-satisfying information.</td>
<td>5.00</td>
<td>1.42</td>
</tr>
<tr>
<td>Negative and personally-unsatisfying information.</td>
<td>3.32</td>
<td>1.57</td>
</tr>
<tr>
<td>C. I am likely to reveal aspects of my PROFESSIONAL life that entail or involve:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional successes.</td>
<td>4.87</td>
<td>1.53</td>
</tr>
<tr>
<td>Professional failures.</td>
<td>4.06</td>
<td>1.61</td>
</tr>
<tr>
<td>Professional goals.</td>
<td>4.73</td>
<td>1.61</td>
</tr>
<tr>
<td>Educational experiences.</td>
<td>5.90</td>
<td>1.21</td>
</tr>
<tr>
<td>Teaching experiences.</td>
<td>5.71</td>
<td>1.30</td>
</tr>
<tr>
<td>Colleagues.</td>
<td>3.15</td>
<td>1.55</td>
</tr>
<tr>
<td>Positive and professionally-satisfying information.</td>
<td>5.13</td>
<td>1.39</td>
</tr>
<tr>
<td>Negative and professionally-unsatisfying information.</td>
<td>3.55</td>
<td>1.57</td>
</tr>
<tr>
<td>D. I am more likely to self-disclose when:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like the student I am interacting with.</td>
<td>5.26</td>
<td>1.44</td>
</tr>
<tr>
<td>I like the class I am teaching.</td>
<td>5.29</td>
<td>1.36</td>
</tr>
<tr>
<td>I feel pressure to do so by students (in-the-moment).</td>
<td>3.03</td>
<td>1.58</td>
</tr>
<tr>
<td>I feel pressure to do so from an on-going departmental expectation.</td>
<td>2.45</td>
<td>1.43</td>
</tr>
<tr>
<td>I feel pressure to do so because of specific course themes/expectations.</td>
<td>3.59</td>
<td>1.92</td>
</tr>
</tbody>
</table>

Note: Ratings were based on a 7-point Likert scale ranging from very unlikely (1) to very likely (7).
incidental example to further illustrate their experiences. Future research could use more experimental methods, employing multiple perspectives of self-disclosure in the classroom, including direct observation of in-class self-disclosure behavior as it occurs. Comparisons of such in-class revelations could also include control conditions where self-disclosure is either absent or minimally evident.

Most notable in the present study is a strong non-response bias with the possibility that my sample included only faculty who tend to self-disclose. Providing a greater number of follow-up contacts to the potential respondents would reduce this bias and bolster the response rate. Although recognized as a recommended survey procedure (Punch, 2003), additional contacts were not conducted due to financial and logistical limitations. While sampling procedure have missed sampling faculty who are less likely to self-disclose, the concern of this bias is lessened given the sample size obtained (Shadish, Cook, & Campbell, 2002).

Faculty can make use of these findings in the following ways. First, the information presented here may provide a sense of reassurance to teachers who intentionally reveal themselves as a way to illustrate a concept or elicit greater student involvement, particularly through attempts to increase positive student affect (Collins & Miller, 1994; Palmer, 1998). These results also underscore the importance of maintaining clear professional boundaries in the many duties inherent to the teaching profession, a point echoed in recent guidelines for employing student self-disclosure as an instructional tool (Haney, 2004). The fact that most of the disclosures listed here do not appear to stray into ethically challenging areas also should be an encouragement. Lastly, as self-disclosure appears to be widely used by faculty across many discipline areas, empirically-informed pedagogy that directly addresses the effective use and modeling of self-revelation is recommended, especially as this topic specifically appears to be out of the purview of several widely-used pedagogical resources (McKeachie, 2002; Perlman, McCann, & McFadden, 1999; Rheingold, 1997).

References


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KEVIN SIMPSON, Ph.D. serves as professor of psychology at Concordia University in Portland, Oregon. Prior to arriving to Portland, he taught in the wilds of rural Utah immediately after completing graduate school in counseling psychology at the University of Denver. His background and training in psychotherapy also required a full year clinical internship at Northwestern University in Evanston, Illinois where he provided clinical and consultative services to the university counseling service on the Evanston and downtown Chicago campuses. He holds memberships in the American Psychological Association, Division 2 of the APA (Teaching of Psychology) and the Council of Teachers of Undergraduate Psychology. In addition to his teaching duties, Dr. Simpson has served as a sport psychology consultant to the Concordia University men’s soccer team. His most recent publications have been in the area of genius and creativity and teaching methods in psychology. His other professional interest areas include ethics in the practice of psychotherapy, eating disordered behavior in sport, athletic identity, and college student development. Recently, Dr. Simpson has presented at international conferences for teachers of psychology, national conferences of the American Psychological Association, and various regional and local conferences in college student psychotherapy.

**Author Notes**

1. Portions of this paper were presented at the biennial Psychology Learning and Teaching Conference of LTSN (consortium of UK universities), Glasgow, Scotland, April 2004.
2. The author would like to recognize and thank Danielle Reilly for her early, significant contributions to the completion of this study.
Staff and Student Perceptions of Plagiarism and Cheating

Jenny Wilkinson
Charles Sturt University

Cheating, plagiarism, and other forms of academic misconduct are a significant issue in higher education. In this study, the attitudes of academic staff and students in a 3 year undergraduate nursing program to various forms of academic misconduct were assessed and compared. Forty-nine percent of staff and 39% of students thought that cheating on assessment tasks was common with “copying a few paragraphs and not citing the source” the most common form. Differences existed in beliefs about why cheating occurred with staff endorsing the view that students lacked an understanding of the rules. Students, on the other hand, felt that wanting a better grade and having too many assessment items were strong motivators for cheating. Students also tended to favor “lighter sentences” (e.g., warnings, resubmission) as penalties for plagiarism. This study has shown that while staff and students have similar overall perceptions about cheating and plagiarism there are areas where the differences in perception may be contributing to mixed messages about the seriousness of various cheating behaviors.

Plagiarism and cheating (e.g., copying from another student in an exam) are forms of misconduct that have become areas of increasing concern for academics in higher education. Clegg and Flint (2006), in their discussion of plagiarism in the United Kingdom, described it as a spreading moral panic. The seriousness with which academics view plagiarism is reflected in institutional policies that class plagiarism as a form of academic misconduct to be dealt with by a range of penalties which may, in the most serious cases, lead to expulsion from the institution. Examples of these policies and processes for Australian and New Zealand institutions are found at the CODE project website (http://www.tlc.murdoch.edu.au/project/acode/index.html) and provide an overview of the range of strategies used to address student misconduct generally. As articulated by Howard (1995), plagiarism can be an academic death penalty resulting in severe penalties which can include exclusion from an academic program or loss of employment. Howard (1995), like many authors, also noted that plagiarism can be aided or hindered by assessment and teaching practices and there have been substantial efforts made to design “plagiarism proof” items. Combined with the use of educative tools and policies, this highlights to the student body the seriousness with which academics hold plagiarism (Carroll & Appleton, 2001; McInnis & Devlin, 2002).

Tea room, corridor, and office discussions propose several reasons for student plagiarism, including failure to understand what is expected or confusion over differing expectations, a response to increasing assessment workload, or, in a minority of cases, a deliberate attempt to deceive markers. These “gut feelings” are reflected in the literature with a number of authors reporting the range of factors and reasons behind student misconduct. These include, but are not limited to, wanting to help a friend, not understanding referencing conventions, difficulty of assessment tasks, peer pressure, and equivocal messages from teaching staff (Brimble & Stevenson-Clarke, 2006; Maramark & Maline, 1993; Sheard, Markham, & Dick, 2003; Thompson, 2006).

Furthermore, Howard (1995), with others, has defined different types of plagiarism ranging from outright cheating and fabrication of laboratory data to non-attribution and “patch-writing,” where several pieces of borrowed material is patched together as a result of lack of understanding of the content (Carroll & Appleton, 2001; Loui, 2002; Martin, 1994). Howard (1995) further suggests that patch-writing may be an attempt to re-synthesize difficult material and, in terms of learning, may actually assist in understand. In this context, what academics see as plagiarism, students may view as a legitimate study strategy.

Reasons suggested as factors influencing student misconduct activity are student age, gender, academic level and course difficulty, and cultural background (Culwin, 2006; Marsden, Carroll, & Neill, 2005; Sheard, Dick, Markham, Macdonald, & Walsh, 2002; Sheard et al., 2003; Sowden, 2005). However, there is no consistent finding for any of these variables and the significance of these factors appear to be context dependent. For example, Sheard et al. (2003) in their study of undergraduates and postgraduate information technology (IT) students showed that undergraduates were more likely to have reported cheating, to have knowledge of another student who had cheated, and to see situations such as high workload and fear of failure as reasons to cheat. In contrast, Marsden et al. (2005) found postgraduate and higher level undergraduate students were more likely to admit to cheating and other academic misconduct. Bennett (2005) suggests that the probability that a student will plagiarize is predicted not by the variables describe above but by a set of attitudinal characteristics and their
interrelationship. These characteristics include attitudes towards plagiarism based on peer influences and religious and ethical positions; fear of failure or penalties if caught; and the intensity of institutional anti-plagiarism activities. Thus, personal ethics and belief systems of students become a significant consideration in any discussion of academic misconduct.

Given the significance of personal beliefs in this discussion it is perhaps not surprising that several authors have further suggested that a significant element of the plagiarism issue is a tension between staff and students with respect to beliefs about right and wrong, and the level of seriousness attached to specific instances of wrong-doing. A number of authors have explored this further (Ashworth & Bannister, 1997; Del Carlo & Bodner, 2004; Dordoy, 2002) and their work supports the idea that students and staff think differently about cheating and plagiarism. Brimble and Stevenson-Clarke (2005) in their study of staff and students at four universities in Queensland, Australia, found that across a number of scenarios, staff consistently viewed cheating as more serious than students. Brimble and Stevenson-Clarke (2005) and Clegg and Flint (2006) also point out the importance of shared understandings of academic integrity and values between staff and students; without this shared understanding, educative and other programs designed to target academic misconduct are unlikely to succeed.

This study was designed to investigate the factors underlying cheating and plagiarism behavior within nursing students attending the Wagga Wagga campus of Charles Sturt University, Australia. Furthermore, I wished to determine whether student’s attitudes to these issues were different than those held by teaching staff. Charles Sturt University is a regional, multi-campus university with approximately 34,000 students and 580 academic staff. This university, like many Australian universities, has engaged in a number of strategies, both punitive and educative, to minimize the occurrence of various forms of student academic misconduct. As many of these strategies focus primarily on plagiarism, this study also focuses on plagiarism; however, this is in the broader context of all academic misconduct.

Method

A questionnaire was developed based on that used by Dordoy (2002) and comprised two sections: (a) demographic questions including whether students lived with other students or came directly to University from school and (b) questions relating to referencing and misconduct activities. This second section contained questions designed to elicit information about the following:

1. Frequency of cheating in assessment items (8 statements; responses from 1 = common to 5 = uncommon);
2. Reasons why students might cheat (10 questions; yes/no responses);
3. Perception of seriousness of a range of cheating and other wrong-doing activities (15 statements; responses from 1 = very serious to 5 = not serious);
4. Personal experience and knowledge of staff plagiarism checking activities (6 questions; yes/no responses);
5. Respondent’s views on the appropriateness of various responses to detection of plagiarism (14 questions; yes/no responses).

Sections a to d above were taken from the instrument used by Dordoy (2002). A duplicate questionnaire was administered to academic staff with the questions about living with other students and whether they were school-leavers replaced by one asking how long they had worked in an academic position and the questions on experience of plagiarism rephrased to reflect a staff perspective. Approval for this study was granted by the Ethics in Human Research Committee, Charles Sturt University.

Staff from the five Schools of the Faculty of Health Studies (n=100) were invited to participate in this study via a letter, with questionnaire included, delivered via the internal mail system. Students enrolled in all three years of the Bachelor of Nursing (n= 254) were approached during on-campus classes with the questionnaires administered within the first 3 days of the first semester.

Completed questionnaires were coded and the data entered into SPSS (Statistical Package for the Social Sciences; v14). Descriptive statistics were calculated for each variable with comparisons between groups assessed using the Chi-squared test and correlation with Pearson Correlation. Differences were deemed statistically significant if p < 0.05.

Results

The response rate for the various groups participating in this study were staff 48%, first-year students 90%, second-year students 67%, and third-year students 100%. Respondent characteristics are shown in Table 1. Consistent with data for the nursing profession as a whole the majority (> 89%) of students were female. As the numbers of males in this study was low, no attempt was made in the analysis to compare data based on gender. There was no statistically significant difference between the proportion of staff and students who thought that cheating on assessment tasks was...
common when the student group was considered as a whole (39% vs. 49%, p = 0.186); however, when examined by year groupings only 23% of second and 29% of third year students thought cheating was common (Table 1, p = 0.019). For staff, the view that cheating was common was correlated with the number of years as an academic (p = 0.021, r = 0.328) but not with age, how confident they were at detecting plagiarism, or whether they had ever given a warning for plagiarism. For students, a correlation existed between thinking that cheating was common and being a school leaver (p = 0.048, r = 0.169); however, when each year group was examined separately, this correlation was only maintained for first-year students. There was no correlation between living on-campus or with other students and either thinking cheating was common or having received a warning for plagiarism.

Just over half of the staff (55%) and students (56%) felt confident that they could detect plagiarism in student work (Table 1). When examined by year groups, first-year students were less confident and more likely to be confused about avoiding plagiarism than those in third year (p = 0.011). While 90% of staff indicated they had given a warning for plagiarism, only 9% of all students indicated receiving a warning. There was no difference between the year levels (p = 0.088).

Table 2 shows responses to the question “How common are each of the following situations?” There were no statistically significant differences between the staff and students’ responses to this question with both groups indicating that “copying a few paragraphs of an essay from a book or web site and not citing” and “working with another student on work that is meant to be individual” were the most common forms of cheating. “Downloading a whole essay from a cheat site or essay bank on the Internet” or “cheating in mid or end of semester exams” was the least common forms of cheating.

Among both staff and students, the most common reasons why cheating occurs was thought to be a lack of understanding about the rules of referencing and laziness or bad time management (Table 3). While there was consistency in responses between staff and students for two of the remaining items (easy access to the Internet, badly designed task), there were significant differences between the two groups for the remaining items. Students more frequently indicated wanting a better grade (73%) and too many assignment tasks (56%) as reasons for cheating, whereas staff indicated that it was unconscious and the student was not aware they were doing anything wrong (65%) and that students thought they were unlikely to be caught (63%). When analyzed by year groups, 71% of third-year students said cheating was result of too many assignments compared with 54% of first-years and 46% of second-years (p=0.002), while first-year students more frequently cited easy access to the Internet (first-years 72%, second-years 44%, third-years 49%, p=0.002).

Both staff and students felt that subject outlines (a document provided for all subjects and detailing subject objectives, timetable, assessment and subject related academic regulations) were clear about the penalties for plagiarism; however, there were significant differences in their response to questions about the guidance from staff and whether staff check for plagiarism (Table 4). There were some further differences based on year level of the students with 17% of third-years compared with 0% of first- and second-year students agreeing that most staff do not check for plagiarism (p = 0.001). In addition, only 57% of students indicated they had read the University Student Academic Misconduct statement; this was lowest amongst first-year students (50%) and highest for third-year students (77%) (p = 0.002).

When asked about the seriousness of various examples of wrong-doing, student and staff rankings were very similar (Table 5); however, the mean value for seriousness was generally higher in staff than in students. Situations which were ranked differently by staff and students were the items “copying the majority of an assignment from a friend but doing a fair bit yourself” and “making up data for a project or lab report” which were regarded as more serious by staff than by students.

The final question on the questionnaire asked respondents to indicate appropriate penalties for first and repeat offences of plagiarism (Table 6). For first offences, students generally opted for warnings and resubmission of the item, with or without loss of marks, while staff favored either warnings with no loss of marks or loss of marks for that item. With repeated offences, both staff and students agreed that zero marks be awarded for that item; however, a significant proportion of students also thought that loss of marks in the item (62% compared with 33% for staff, p < 0.0001) or resubmission with mark penalty (34% vs. 13% for staff, p = 0.004) were appropriate responses. More staff that students (90% vs. 65%, p = 0.001) thought that an official reprimand from the Head of School was warranted.

Discussion

While general concern for the level of plagiarism in assessment items is high, the results of this study found that less than half of both staff and students thought that cheating in assessment tasks was common. Furthermore, the very terms used (plagiarism and cheating) have no clear definition with some seeing them as synonymous, while others see plagiarism as a subset of cheating, or as separate issues (Flint, Clegg, &
### Table 1
Summary of Respondent Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Academic staff (n=48)</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First years (n=143)</td>
<td>Second years (n=39)</td>
</tr>
<tr>
<td>Age (mean ± SD years)</td>
<td>45 ± 9</td>
<td>23 ± 7</td>
</tr>
<tr>
<td>Females</td>
<td>76%</td>
<td>89%</td>
</tr>
<tr>
<td>Males</td>
<td>24%</td>
<td>11%</td>
</tr>
<tr>
<td>Years in an academic position (mean ± SD)</td>
<td>9 ± 7 years</td>
<td>(range 1-32 years)</td>
</tr>
<tr>
<td></td>
<td>24%</td>
<td>10%</td>
</tr>
<tr>
<td>Living on-campus</td>
<td>39%</td>
<td>28%</td>
</tr>
<tr>
<td>Living with other students</td>
<td>47%</td>
<td>46%</td>
</tr>
<tr>
<td>Entered University directly from school</td>
<td>49%</td>
<td>46%</td>
</tr>
<tr>
<td>% who think cheating on assessment tasks is common</td>
<td>49%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Staff: How confident are you that you can detect plagiarism?
Students: How confident are you that understand how to reference correctly to avoid plagiarism?

<table>
<thead>
<tr>
<th></th>
<th>Very confident</th>
<th>Confident</th>
<th>Not confident</th>
<th>Staff: I don’t look for plagiarism</th>
<th>Students: I am completely confused</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8%</td>
<td>47%</td>
<td>45%</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>40%</td>
<td>36%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>54%</td>
<td>31%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>11%</td>
<td>69%</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Staff: % who have given a warning for plagiarism
Students: % who been given a warning for plagiarism

<table>
<thead>
<tr>
<th></th>
<th>Staff</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90%</td>
<td>9%</td>
</tr>
</tbody>
</table>

### Table 2
Responses to Question “How Common Are Each of the Following Situations”

<table>
<thead>
<tr>
<th>Situation</th>
<th>common</th>
<th>unsure</th>
<th>uncommon</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copying a few paragraphs of an essay from a book or web site and not citing</td>
<td>Staff 41.7</td>
<td>35.4</td>
<td>12.5</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>Student 30.9</td>
<td>30.4</td>
<td>21.2</td>
<td>9.7</td>
</tr>
<tr>
<td>Copying most of an assignment from some source</td>
<td>Staff 4.3</td>
<td>4.3</td>
<td>12.8</td>
<td>34.0</td>
</tr>
<tr>
<td></td>
<td>Student 6.0</td>
<td>11.5</td>
<td>21.1</td>
<td>30.7</td>
</tr>
<tr>
<td>Downloading a whole essay from a cheat site or essay bank on the Internet</td>
<td>Staff 2.1</td>
<td>2.1</td>
<td>21.3</td>
<td>8.5</td>
</tr>
<tr>
<td></td>
<td>Student 3.8</td>
<td>5.2</td>
<td>26.8</td>
<td>21.1</td>
</tr>
<tr>
<td>Cheating in mid or end of semester exams</td>
<td>Staff 0</td>
<td>6.4</td>
<td>17.0</td>
<td>23.4</td>
</tr>
<tr>
<td></td>
<td>Student 1.4</td>
<td>5.5</td>
<td>26.3</td>
<td>21.7</td>
</tr>
<tr>
<td>Cheating in quizzes or in class tests</td>
<td>Staff 6.5</td>
<td>21.7</td>
<td>23.9</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>Student 12.6</td>
<td>26.0</td>
<td>24.7</td>
<td>20.0</td>
</tr>
<tr>
<td>Making up data for a project or lab report</td>
<td>Staff 8.7</td>
<td>23.9</td>
<td>34.8</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>Student 16.1</td>
<td>27.6</td>
<td>33.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Working with another student on work that is meant to be individual</td>
<td>Staff 26.5</td>
<td>42.9</td>
<td>16.3</td>
<td>10.2</td>
</tr>
<tr>
<td></td>
<td>Student 32.1</td>
<td>40.8</td>
<td>15.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Passing off others’ ideas/images/designs as your own</td>
<td>Staff 17.8</td>
<td>22.2</td>
<td>24.4</td>
<td>24.4</td>
</tr>
<tr>
<td></td>
<td>Student 16.6</td>
<td>27.6</td>
<td>26.3</td>
<td>18.9</td>
</tr>
<tr>
<td>Paying someone to write an essay for you</td>
<td>Staff 4.3</td>
<td>8.5</td>
<td>23.4</td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>Student 4.1</td>
<td>5.0</td>
<td>28.9</td>
<td>14.2</td>
</tr>
</tbody>
</table>
Table 3  
Responses to Question Asking for Common Reasons Why Students Might Cheat on Assessment Items

<table>
<thead>
<tr>
<th>Common reasons for cheating:</th>
<th>Staff (n=48)</th>
<th>Students (n=217)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not understanding the rules of referencing</td>
<td>82%</td>
<td>76%</td>
<td>0.373</td>
</tr>
<tr>
<td>Laziness or bad time management</td>
<td>78%</td>
<td>86%</td>
<td>0.153</td>
</tr>
<tr>
<td>Easy access to material via the Internet</td>
<td>69%</td>
<td>63%</td>
<td>0.388</td>
</tr>
<tr>
<td>It happens unconsciously &amp; the student is not aware they are doing anything wrong</td>
<td>65%</td>
<td>48%</td>
<td>0.030</td>
</tr>
<tr>
<td>Not likely to be caught</td>
<td>63%</td>
<td>29%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Wanting to get a better grade</td>
<td>51%</td>
<td>73%</td>
<td>0.003</td>
</tr>
<tr>
<td>Peer pressure to share material</td>
<td>49%</td>
<td>30%</td>
<td>0.012</td>
</tr>
<tr>
<td>Penalties for being caught are to small to be of concern</td>
<td>31%</td>
<td>6%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Too many assignments to do during the session</td>
<td>31%</td>
<td>56%</td>
<td>0.002</td>
</tr>
<tr>
<td>Badly designed assessment tasks</td>
<td>22%</td>
<td>21%</td>
<td>0.835</td>
</tr>
</tbody>
</table>

Table 4  
Responses to Statements about Plagiarism

<table>
<thead>
<tr>
<th>Students receive adequate guidance from staff about what isn’t acceptable in terms of referencing in assignments</th>
<th>Staff (n=48)</th>
<th>Students (n=217)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most staff do not check whether or not work is plagiarized</td>
<td>78%</td>
<td>57%</td>
<td>0.008</td>
</tr>
<tr>
<td>I/students find the different approaches to plagiarism by staff confusing</td>
<td>33%</td>
<td>5%</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Subject outlines are clear about the penalties for plagiarism</td>
<td>82%</td>
<td>73%</td>
<td>0.229</td>
</tr>
<tr>
<td>I have read the University’s statement on student academic misconduct</td>
<td>90%</td>
<td>57%</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Table 5  
Ranking and Mean Score for Seriousness of Various Examples of Wrong-Doing.

| Violent and abusive behavior | Student 1.16 | Staff 1.07 |
| Cheating in an exam          | 1.16         | 1.06      |
| Downloading a whole essay from a cheat site on the Internet | 1.19       | 1.08 |
| Cheating on a partner         | 1.27         | 1.10      |
| Copying most of an assignment from a book or Internet site without citing the source           | 1.59         | 1.18      |
| Stealing a small item from a large shop                                                        | 1.67         | 1.18      |
| Submitting an essay or prac report obtained from a student who has already done the subject  | 1.86         | 1.23      |
| Passing off others’ ideas/designs/images as your own                                            | 1.88         | 1.37      |
| Taking recreational drugs                                                                | 1.95         | 1.44      |
| Copying the majority of an assignment from a friend, but doing a fair bit of the work yourself | 1.97         | 1.64      |
| Obtaining a medical certificate from a doctor when you are not really sick in order to get an extension for an assignment | 2.19       | 2.04 |
| Copying a few paragraphs of an essay from a book or Internet site without citing the source    | 2.32         | 2.22      |
| Making up data for a project or lab class                                                      | 2.41         | 2.22      |
| Fare-evasion on public transport                                                             | 2.94         | 2.27      |
| Working with another student on work that is meant to be individual                           | 2.89         | 2.49      |

Note. Responses were indicated on a scale from 1 (very serious) to 5 (not serious).
Table 6
Staff and Student Responses to Question Related to Appropriateness of Various Penalties for First and Repeat Instances of Plagiarism

<table>
<thead>
<tr>
<th>First offence</th>
<th>Student</th>
<th>Staff</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written or oral warning from staff but no loss of marks</td>
<td>62</td>
<td>41</td>
<td>0.008</td>
</tr>
<tr>
<td>Student allowed to resubmit item with no mark penalty</td>
<td>46</td>
<td>12</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Student allowed to resubmit item with some mark penalty</td>
<td>37</td>
<td>45</td>
<td>0.297</td>
</tr>
<tr>
<td>No penalty or warning</td>
<td>24</td>
<td>4</td>
<td>0.002</td>
</tr>
<tr>
<td>Loss of marks</td>
<td>24</td>
<td>51</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Zero marks awarded for that assessment item</td>
<td>10</td>
<td>18</td>
<td>0.079</td>
</tr>
<tr>
<td>Official reprimand from Head of School</td>
<td>5</td>
<td>10</td>
<td>0.197</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repeated offences</th>
<th>Student</th>
<th>Staff</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero marks awarded for that assessment item</td>
<td>71</td>
<td>73</td>
<td>0.815</td>
</tr>
<tr>
<td>Official reprimand from Head of School</td>
<td>65</td>
<td>90</td>
<td>0.001</td>
</tr>
<tr>
<td>Loss of marks</td>
<td>62</td>
<td>33</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Student allowed to resubmit item with some mark penalty</td>
<td>34</td>
<td>13</td>
<td>0.004</td>
</tr>
<tr>
<td>No penalty or warning</td>
<td>7</td>
<td>0</td>
<td>0.062</td>
</tr>
<tr>
<td>Student allowed to resubmit item with no mark penalty</td>
<td>5</td>
<td>0</td>
<td>0.118</td>
</tr>
<tr>
<td>Written or oral warning from staff but no loss of marks</td>
<td>4</td>
<td>2</td>
<td>0.460</td>
</tr>
</tbody>
</table>

Macdonald, 2006). In the absence of definitive data on the extent of plagiarism within this specific institution, or even in the sector as a whole, it is difficult to judge how representative this data is; it is, however, consistent with Pickard’s (2006) work but lower than that reported for IT students at an Australian University (Sheard et al., 2002). More interesting was that students in their second and third years thought that the level of cheating was lower than staff and first-year students. Part of this difference appears to be related to whether the student was a recent school leaver but may also be a reaction to the intensive plagiarism awareness initiatives that take place in the orientation period for new students (this study was done 3-5 days after orientation). Perhaps not surprisingly, the longer a staff member had been working as an academic the more common they thought cheating was. The staff in this study teach several different students groups and while not all staff taught the students in this study, there is no reason to suspect that approaches to plagiarism would vary between the various health disciplines. Almost all academic staff had given warnings for plagiarism; however, only 9% of students admitted receiving a warning.

In contrast to the study by Dordoy (2002), both staff and students had similar views about the frequency of specific cheating/plagiarism behaviors with copying text without providing a citation felt to be most common behavior. This is perhaps a reflection of Howard’s (1995) notion of patch-writing as a learning strategy to cope with difficult material. It may also be reflective of comments from students that they lack the necessary disciplinary language and thus fall back on the author’s words rather than attempt to rewrite the material and risk getting it wrong. If this is the case, it points to the need for specific educative strategies that focus on engaging with disciplinary language as well as disciplinary content. From a staff perspective, the high frequency of “copying of a few paragraphs” as a form of cheating may also be a reflection of the relative ease with which this type of plagiarism is detected. Disjointed text, inconsistent style, and changes in language complexity are readily detected by even the most inexperienced staff. With 45% of staff indicating they are not confident about detecting plagiarism, those forms of plagiarism that are most easily detected may appear more prominent.

While there was concordance between staff and students with respect to the occurrence of cheating/plagiarism, there was a separation when it came to the reasons why these occur. Lack of understanding about the rules of referencing combined with laziness appeared as a major reasons for cheating (Table 3); however, staff were more inclined to think that it happened unconsciously or that students did not think they would be caught, whereas students wanted better grades or used it as a strategy for coping with high assessment load. This is similar to the findings of other studies which have cited high workload, lack of time, and pressure to pass/fear of failure as reasons for cheating (Dordoy, 2002; Sheard et al., 2003).

Interestingly, although no staff admitted to not checking for plagiarism, a third of staff as a whole thought that their colleagues do not check for plagiarism. Furthermore, 17% of third-year students, those with the most experience of staff practices, compared with no students in first or second year felt staff failed to check for plagiarism. This suggests that some staff may not be as visible or as vigilant about checking for plagiarism as others; this has the potential to seriously undermine institutional messages about this academic misconduct.

As in Dordoy’s study (2002), on which the questionnaire used in this study was based, students and staff ranked various examples of wrongdoing similarly.
with students rating the items as less serious than staff. The inclusion of non-academic items in this scale attempts to separate general wrong-doing from those solely associated with academic activities and hence enable better understanding of the underlying differences between staff and students. An item that showed differences between the groups was for making up data for a project or lab class with staff seeing this as moderately serious (mean score 1.64) compared with students (mean score 2.41). This is also consistent with Del Carlo and Bodner (2004) who found that students viewed dishonesty in laboratory classes as less serious than in real-life laboratories and that data collection in a class setting was just a means to an end (i.e., a grade). Although Brimble and Stevenson-Clarke (2005) found that staff and students differed on all examples of cheating in their study, they also noted that the greatest differences were for items relating to falsification of research data and copying another student’s work. This view may have serious consequences if students carry this view into their professions. Particularly, for those in health professions, the outcomes may affect patient care.

When asked about appropriate penalties for plagiarism, students tended to err on the side of lower penalties or penalties that did not result in a loss of marks. For example, for first offences students favored warnings with no loss of marks, in contrast to staff who favored a loss of marks. There was more similarity in responses for penalties for repeat offences; however, students still favored penalties that allowed reduced marks rather than give no marks for items. Staff responses to this item on penalties broadly followed University policy on responses to student academic misconduct; however, there was considerable variability. Under this policy, penalties for academic misconduct range from counseling by staff, significant mark reduction for the assessment item, to official reprimands, and failure in the subject (Charles Sturt University Student Academic Misconduct Policy, 2006). In this study, 38% of students agreed that the different approaches to plagiarism by staff was confusing, perhaps reflecting Flint et al.’s (2006) suggestion that individualized responses by staff, while meeting the staff’s personal beliefs about the seriousness of various forms of cheating and plagiarism, may actually undermine institutional policy and guidelines. Furthermore, in contrast to the 78% of staff who thought that students receive adequate guidance about what was and was not acceptable, 43% of students felt that were not gaining this information. Together, this suggests students may be receiving mixed messages about expectations and penalties and this may be contributing to students’ failure to understand the rules of referencing and how to avoid plagiarism.

One of the significant limitations of the current study is that the student cohort was relatively homogenous with respect to both age and gender, and the results may not be applicable to other student groups. As age, gender, experience with academia, and other factors such as cultural background may also influence attitudes to academic misconduct, future studies using larger more heterogeneous student groups are recommended. Another issue which has arisen is the possible difference in terminology used by staff and students, and the meanings and significance attached to the terms plagiarism, cheating, and misconduct. Fundamental differences in terminology will result in miscommunication about the issues and may undermine educative programs designed to address academic misconduct in higher education.

Notwithstanding these limitations, this study has shown that while staff and students share many perceptions about cheating and plagiarism, there are areas where the differences in perception may be contributing to mixed messages about the seriousness of various cheating behaviors. These data can be used to develop local and institutional programs to improve preventive and educative strategies to minimize plagiarism while also improving students’ understanding of the academic culture. This is particularly important for students new to the academic environment, and good support programs will ease their entry into what is sometimes a very different world to high school or industry. In this study, there were few differences between the year groups; however, the number of non-first-year students was small and more data is needed to determine whether exposure to academic norms changes the way students think about academic misconduct. A longitudinal study of students’ perceptions, and how they change during their course of study, is currently in place and will address these questions.

References


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Photographic Images as an Interactive Online Teaching Technology: Creating Online Communities

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Creating a sense of community in the online classroom is a challenge for educators who teach via the Internet. There is a growing body of literature supporting the importance of the community construct in online courses (Liu, Magjuka, Curtis, & Lee, 2007). Thus, educators are challenged to develop and implement innovative teaching technologies that help create virtual communities. The purpose of this exploratory research project was to document and analyze the students’ perceptions of an original interactive teaching technology called photovoice (PV) (Wang, & Burris, 1997). PV was trialed as a teaching strategy in a graduate course on change management. Following the completion of the course, qualitative data was collected from students regarding their experiences with PV. Three key themes emerged from the data: (a) support for course engagement, (b) enhancement of the learning environment, and (c) development of social connectedness. These findings are discussed within the context of an online learning community as described by Rovai (2002a) and the Community of Inquiry Model proposed by Garrison, Anderson, and Archer (2000). Finally, research questions that arise from this study are outlined.

Implementing effective interactive teaching technologies in any learning environment is challenging. This is especially so in online instruction where some say asynchronous communications and the potential for disconnectedness may impede interaction and result in feelings of isolation (Slagter van Tryon & Bishop, 2006). Proponents of social constructivism highlight the role of social influences and community in the learning process in distributed learning (Brook & Oliver, 2003). The importance of creating community in higher education offered through distance is essential “to support collaborative learning and discourse associated with higher levels of learning” (Garrison, 2006, para 3).

Paramount to development of community in the online classroom is the instructor’s ability to facilitate communications (Brook & Oliver, 2003). Traditional technology tools used to facilitate online communications include discussion forums, chat facilities, and email. While these traditional tools are effective to a degree, alone they often lack strategies that enhance feelings of social connectedness (Slagter van Tryon & Bishop, 2006). Feelings of isolation and low sense of community are factors associated with negative online learning outcomes such as low perceptions of cognitive learning (Rovai, 2002), learning engagement, and course satisfaction (Liu, Magjuka, Bonk, & Lee, 2007) as well as low persistence rates (Rovai & Wighting, 2005). Therefore, there is a need to add more innovative teaching technologies that maximize interaction and learning within the community context. Hence, this exploratory research was undertaken to test the effects of a particular interactive teaching technology in an online graduate course. This technology is called photovoice (PV) (Wang & Burris, 1997).

Photovoice was originally founded as a participatory-action research methodology where researchers used photographs to elicit, bring forth, and draw out responses from participants on issues related to their health and community needs (Wang & Burris, 1997). For the purposes of this study, the researchers modified PV to become an interactive teaching technique for online instruction. The PV teaching technology involved the use of photographic images to generate weekly discussion and involve learners actively in the online learning process. Preliminary research by Perry (2006) using PV as an interactive online teaching strategy found that positive effects related to this teaching approach were reported by learners. These included capturing students’ attention, stimulating creative thinking, and creating community. Building on Perry’s initial findings this study further explored the relationship between PV as an interactive online teaching strategy and creation of an online community.

This exploratory qualitative research study is presented in several sections. First, a conceptual framework of social constructivist theory is provided followed by a brief review of pertinent literature. Methodology used in the study is outlined highlighting the PV technique, data collection, data analysis, and study limitations. Findings are presented within the three emergent themes identified: (a) support for course engagement, (b) enhanced learning environment, and (c) development of a social connectedness. The discussion section examines the findings using the work of Rovai (2002a) and Garrison, Anderson, and Archer (2000).
Finally, research questions that arise from this study are outlined.

**Literature Review**

**Conceptual Framework**

The theoretical underpinning of this study is founded in social constructivist theory (SCT). Social constructivism is a dominant learning paradigm commonly linked to Vygotsky focusing on processes and interactions within a social context (Hung, 2001). Like constructivism theory, SCT assumes that knowledge is constructed by students; however, emphasis is placed on the importance of interaction with people and social context as it influences learning. According to SCT, learning is characterized by mediation through language, discovery of different perspectives, and shared meaning (Hung). Given the goal of the PV teaching strategy is to “give voice” to learners in a shared learning environment, the use of SCT to inform this study is fitting.

**Online learning.** In an era of rapid technological change, online educational opportunities for students are growing at an exponential rate (Hodge, Bosse, Faulconer, & Fewell, 2006). The advent of internet-based telecommunications technology has increased the potential for interaction and collaborative work in online courses and thus changed the social and pedagogical perspective of distance learning (Dabbagh, 2004). Shea (2006) identified three changes to underlying assumptions associated with student-centered, interactive pedagogical models: (a) a philosophical shift from objectivism towards constructivism, (b) a theoretical shift from behaviorism towards socio-cognitive views of education, and (c) a pedagogical shift from direct instruction to the facilitation of collaborative learning. “It is argued that these foundational assumptions point to the importance of a learning community in the effectiveness of online learning environments” (Shea, 2006, abstract).

Further support for the importance of community can be identified in the literature related to student retention. Evidence of feelings of alienation and low sense of community factors have been reported in the distance education literature and may explain the relatively low, below 60%, persistence rates reported in some online programs (Rovai & Wighting, 2005). A recent study by Rovai and Wighting reported that general alienation is inversely related to classroom community and recommended that learning activities that foster a sense of community and increase academic achievement should be pursued. Deliberately creating a safe “community of learning” online is essential to online course retention and eventual success (Wiesenber & Stacey, 2005, p. 395).

**Learning community.** It was believed that a strong sense of community was limited to the traditional classroom; however, in 2002, Rovai (2002a) published a paper arguing that virtual classrooms had the potential to equally build and sustain a sense of community. Rovai (2002a) defined a learning community as a group of students who have feelings of trust and belonging, possess shared expectations and are committed to shared educational goals. A sense of learner community is viewed “as consisting of four related dimensions: spirit, trust, interaction, and commonality of learning expectations and goals” (p.12).

The benefits of learning communities are many. Some evidence suggests that the creation of an online learning community serves as the foundation for a successful learning environment (Conrad, 2002; Lee, Carter-Wells, Glaeser, Ivers, & Street, 2006). In a recent study by Lee, Carter-Wells, Glaeser, Ivers, and Street (2006), graduate students “commented that community involvement made them feel more committed to attaining the shared goals of the program (93%); community membership enhanced their sense of self-worth and efficacy (80%); and engagement in the community decreased their sense of isolation and increased their social support for learning (74%)” (p.18). There is also evidence that a significant positive relationship exists between sense of community and perceived cognitive learning (Liu et al., 2007; Rovai, 2002b). These positive outcomes further support the value of learning communities in online instruction. While the value of learning communities is evident, it is important to recognize that facilitating their formation is challenging. Given “the particular affective nature of forming and maintaining a sense of community, extra demands are placed on ...facilitators” (Rovai, 2002b, p.3). In a study conducted by Lee et al. (2006), graduate students cited a community centered approach as most essential for building community followed by a constructivist learning environment. Ouzts (2006) commented, “by integrating learning activities that promote interaction, negotiation, and debate in online courses, instructors may begin to build a learning community in which students collaborate” (p. 293). Rovai (2002b) suggested “that instructors teaching at a distance may promote a sense of community by attending to seven factors: transactional distance, social presence, social equality, small group activities, group facilitation, teaching style and learning stage, and community size” (p.12). Supporting this finding, Hodge, Bosse, Faulconer, and Fewell (2006) suggested that communities of learning can be formed by mimicking proximity; this requires addressing social and psychological factors, such as social space and social presence, that impact and facilitate communications. It is apparent from this literature that development of learning communities is primarily
instructor driven. Previous research supports the importance of teacher presence in the online environment (Garrison et al., 2000).

Immediacy. Successful establishment of learning communities seems to depend on the instructor’s facility to create immediacy. “Immediacy refers to communication behaviors that reduce social and psychological distance between people [and] includes both nonverbal and verbal behaviors” (Arbough, 2001, p. 43). Recent research studies (Kreijns, Kirschner, & Jochems, 2002; Na Ubon & Kimble, 2004; Richardson & Swan, 2003; Woods & Baker, 2004) make reference to the importance of immediacy behaviors in the virtual classroom but do not specifically speak of how to facilitate this experience. A recently published study by Slagter van Tryon and Bishop (2006) identified problems instructors’ face that impede social connectedness online and identified 95 expert-identified e-mmediacy strategies to address these problems. Interestingly, the PV teaching technology incorporates several of the strategies identified. For example, the participants, a group of experts in e-mmediacy, identified the instructors’ ability to stimulate frequent and consistent interactions throughout the course as most important to program effectiveness. The aim of PV is, at least in part, to stimulate such student – instructor interactions.

Community of inquiry. The Community of Inquiry Model (COI) developed by Garrison et al. (2000) provides a framework that encompasses concepts of community discussed in this literature review. This model highlights three major aspects on the online learning community: (a) social presence, (b) cognitive presence, and (c) teacher presence which overlap to form the educational experience of the learner. In later work, Archer, Garrison, Anderson, and Rourke conclude that “creation of adequate levels of cognition, social and teaching presence are associated with high levels of deep and meaningful learning” (as cited in Perry & Edwards, 2005, p.47). A COI is created online when a group of people who are strongly linked both socially and cognitively, experience learning through the leadership of a teacher. Given that social, cognitive, and teacher presence are elements present in the PV teaching technology, the COI Model was used to guide the analysis and interpretation of data in this study.

Summary. The social aspect of learning and the importance of community are well documented in the literature. However, there is little research on the use of specific online teaching technologies such as PV in developing a sense of community conducive to a positive virtual learning environment. This study builds on research in that it examines the use of PV in helping to create a sense of community in the online educational environment.

Photovoice Technology

Method

As stated previously, PV was originally founded as a participatory-action research methodology where researchers used photographs to elicit, bring forth, and draw out responses from participants on issues related to their health and community needs (Wang & Burris, 1997). One of its goals is “to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs” (Wang & Burris, 1997, abstract). By entrusting common people, not health specialist and policymakers, with cameras, PV allowed participants to document and discuss their life conditions as they saw them. Through this research methodology, participants, even those who were not especially verbally articulate, were enabled to effectively communicate their perceptions and insights to investigators (Wang, 1999). PV engaged community participants into a group process of critical reflection.

The researchers in the study reported here took the PV research method and transformed it into an interactive teaching technology for online instruction. The resulting PV teaching technology builds on the theoretical understandings established in the education literature on critical consciousness and feminist theory (Wang & Burris, 1997; Wang, Burris & Xiang, 1996). The PV teaching technology involved the use of a purposefully selected image to generate discussion and involve learners actively in the online learning process. Digital images, selected by the professor for their relevance to the topic of the week, were posted the first day of a new unit as part of the introductory discussion for a topic forum. Photographic images used in the course included scenes of nature or human made items that in some sense could be related to the week’s unit. Images were specifically chosen given their interpretative potential. The PV for a particular unit was selected by the course instructor to attempt to elicit certain reactions, thoughts, and comments from the students. For example, in the unit on initiating change, the image used was a fence under construction. One part of the fence was old and shabby while the rebuilt part of the fence was freshly painted, straight, and attractive. This image elicited a wealth of discussion regarding the difficulty of letting go of the old to bring in the new, the challenge of adapting to the new look of change, and comments about the hard work of making change happen.

Each purposefully selected image was accompanied by a reflective question posed by the instructor. The question invited learners to react, or give voice, to the photo through a written conference posting. Students were encouraged to view the
photograph and consider the question and then to contribute to a special discussion forum provided specifically for that activity.

Data Collection

Similar to the preliminary PV research conducted by Perry (2006), this study used PV as a teaching technology and collected qualitative data related to student experiences with PV. Fifteen students in a graduate class on change management were exposed to the PV technology. This group was chosen as the primary investigator of this study instructed the course and was able to administer the PV technology. As appropriate with convenience sampling, all students in the class were potential participants in the study. Given the change management course was offered as part of a nursing and health studies graduate program, students possessed undergraduate degrees and work experience in health related fields such as nursing, social work, and health care management. Demographically, the students were primarily female, middle aged (greater than 30 years old), and resided in Canada.

As part of a 13 week course that was offered online, these learners were invited by the instructor to participate weekly in a PV forum by viewing the posted photographic and posing their reaction to the reflective question. Participation in the PV forum was voluntary and no grades were attached to participating or not. At the conclusion of the course, after all final grades for the course were finalized, a faculty member who was not associated with the course invited students to comment on their experience with PV in a designated forum. A third party compiled the comments and removed all identifiers before sharing the data with the investigator. All potential participants had consented to having their comments used for research purposes. Ethical approval for the study was granted by the Athabasca University Research Ethics Approval Board.

Data Analysis

Qualitative data was systematically analyzed using a process similar to narrative analysis as described by Priest, Roberts, & Woods (2003). Specifically, the participants’ qualitative comments regarding their experiences with the PV strategy were read several times by the investigators; fragments of sentences, sentences, or groups of sentences expressing a key idea were highlighted; and then grouped together to identify core themes. Mitchell and Jones (2004) call this process “thematising.” The common themes that were identified are a means of communicating what was experienced by the study participants. Submissions varied in length from a few sentences to several paragraphs.

Study Limitations

Limitations of this study relate to the small sample size, response bias, piloting the PV teaching strategy by only one instructor, and the homogeneity of the participants. Only one course with a maximum of 15 potential study participants, a small sample, was exposed to the PV teaching strategy. Students who opted to participate in this study may have been those who viewed PV positively and thus were more motivated to respond. This may have biased the results and positively skewed the findings. The course in which the strategy was used related to the theme of change management. Findings may be quite different in a course with different content. Similarly, instructors have individualized teaching styles that impact the ethos of the online learning environment differently. Thus, use of the PV strategy by another instructor may not result in similar findings. Additionally, the homogeneity of the sample, mostly female graduate students in health care leadership positions, could likely have influenced the findings. Furthermore, although the course in which the study participants were involved was completed and final grades had been submitted before data were collected, it is possible that the previously established students-researcher relationships may have influenced the tone of the responses from the learners. Finally, the subjective nature of analysis of qualitative data may be viewed as limiting. However, within the context of qualitative research, validity was achieved through the agreement of the research team that reoccurring themes were drawn from the data.

Given the preliminary nature of the research and the limitations discussed, it is not possible to generalize results. However, the aim of this qualitative study was not to generalize but to explore perceptions as they related to the PV teaching strategy. Further research using a larger sample size and rigorous quantitative and qualitative designs are necessary follow-up to this investigation as the proposed findings remain inconclusive due to the study limitations.

Results

The narrative analysis of the qualitative data indicated that the PV teaching strategy was viewed as a very positive approach in the delivery of a graduate online course. Three themes emerged from the data: (a) support for course engagement, (b) enhancement of the learning environment, and (c) development of a social connectedness. Each emergent theme will be detailed by in-depth reporting of the data. Data within the first two emergent themes was further categorized into two sub-themes.
Support for Course Engagement

In general, students felt that PV supported engagement in the course content. Support for course engagement emerged in two sub-themes: (a) focus on the topic and (b) early and full engagement into course content.

Focus on the topic. Photovoice was identified as an effective method for the instructor to introduce a topic. One participant commented that “with PV the instructor was able to set the stage for the week’s learning.” Another participant noted that PV was used as “a gentle way to guide our thoughts in the direction of the topic for the week.”

It appears that PV assisted students in identifying learning expectations while helping them to focus on a particular course topic. One respondent wrote, “What the PV would do for me each week is help me gently refocus on the week's course work. It was like drinking a nice warm cup of java. [PV was] kind of like opening my eyes to the possibilities of the week.

Early and full engagement in course content. It was noted by the respondents that the PV activity provided students with a way to engage early and more fully in course content. One student suggested that PV “provoked early meaningful discussion each week and the majority of the class participated in the discussion.” Another student felt that the PV was like “a quick ‘ice breaker’ to get the week’s discussions started early.”

It was reported by the participants that PV provided a safe and fun environment to explore the focus topic. One student commented “what a great way to start discussion...no right or wrong answers...just your perceptions.” As there was no right or wrong interpretation of the photograph, students seemed to feel safe expressing their views. PV helped create a non-intimidating learning environment. The outcome was that many students reported the exercise was “fun” and that they looked forward to it every week. One participant commented on the excitement generated by the surprise element of PV, saying,

Then there was the “mystery” aspect. What would [the instructor] come up with this week? I always waited with great anticipation to see what would be unveiled from behind that sturdy, electronic paper clip!

Another participant commented on the anticipation generated by the upcoming PV, saying, “Each week I looked forward to what picture may grace our screens.”

Overall, PV was viewed by the study participants as a “gift” that provided focus and encouraged early and full course engagement. As one student noted “PV very much brings in the concept of the ‘invitational classroom’.”

Enhance Learning Environment

The second major theme relates to enhancement of the learning environment. Findings suggest that PV enhanced the atmosphere and tone of the electronic classroom thus stimulating interest and creativeness.

Interest. The rich discussions generated by the PV activity along with the visual stimulation the PV images provided appear to have prompted class interest. One student reported that “The PV activity keeps the topic open ended and diverse rather than narrow in one direction.” Others described the tool as adding color to an otherwise gray and dull medium [of online learning]. Two students reported being visual learners and felt that the visual stimulation of the photographs facilitated learning and retention for them. One visual learner said,

Pictures assist with memory through the combination of two channels - words and pictures. So the photovoice, linked with the week's narrative material, has the potential to enhance learning and retention. Certainly it worked that way for me.

Another study participant who noted she had a visual learning style said,

I'm a visual learner and I believe in that old saying "a picture paints a thousand words." The photovoice helped begin to create the flow of words I would need each week to better understand the week's key learnings, and to be able to contribute to the forums.

Creativeness. Many students reported that the PV learning tool facilitated creative thinking. Many commented that PV caused them to “think outside the box.” One respondent noted, “It is a great way to stimulate creativity and encourage us to think beyond the usual.”

Class creativity was viewed as having a positive influence on the quality of the discussion. Some students felt it contributed to valuable dialogue. One respondent said,

It helped me to review the course material with both sides of my brain - the creative and the analytical. With the combined juices flowing, I think the responses to the rest of the questions and dialogue was richer, less rote, and more creative.

Another student said something parallel by commenting,
For me PV was similar to the idea of how an intriguing piece of artwork can generate reflective and stimulating discussion. Photovoice further enabled the creative juices in the brain to get flowing – it challenged me to think beyond facts and textual materials.

These student comments suggest that the inclusion of PV enhanced the learning environment by stimulating interest and creativeness. It appears that PV moved the learning tasks beyond the regular reading and writing activities of most online courses. The PV activity appears to have enhanced the learning environment for the students by capturing their attention and inspiring creativeness.

**Development of a Social Connectedness**

It seems that PV contributed to the development of a sense of social connectedness in the virtual classroom. One student felt that PV “let us see into the inner self of each other.” Social connectedness may have occurred because the sharing nature of the discussion that PV elicited. In other words, when students responded in narrative to the photographic images they revealed some elements of themselves to the class. Their perceptions of the photographs exposed their personal values, beliefs, hobbies, life circumstances, and priorities and allowed the class participants to get to know one another on a more intimate level. This is reflected in the following student comment:

“Sometimes online learning can be isolating, and just doing the readings and learning activities is not enough for that enjoyable social interaction that can be found in a [real] classroom. Photovoice provided that [social interaction element] to my learning environment as I got to know my classmates – I mean really know them because of how they saw the photos.”

Posting of PV interpretations encouraged students to share their own perceptions and consider the perceptions of others. This added a personal dimension to the electronic instructional medium. As one student reported,

“Photovoice presented variety in a faceless virtual world. I found reading the responses of other people allowed me a moment to glance into their world demonstrating a personal view which may not have come through in their [other] postings.”

Another student described her experience with PV as a way to connect with others this way:

The array of responses, interpretations - sort of like a book -somewhat biographical as we all identified with the picture in different ways. It provided a forum for us to get to know each other through different lenses.

Through these quotes, it is evident that discussion prompted personal responses to the photographic images which contributed to a sense of social connectedness in the learning environment. By participating in PV, students were able to interact with their classmates in a manner that facilitated meaningful personalized discussion. As one student described this theme, PV “served to knit the class of learners together in a much different way.”

**Discussion**

As demonstrated in the findings section of this paper, from the students’ perspective, the PV teaching strategy supported course engagement by focusing the topic and encouraging early and full engagement in the topic for the week; enhanced the learning environment by prompting student interest in the topic and inspiring creativeness; and helped developed a sense of social connectedness in the online classroom. These key findings are discussed in the context of two questions: “Did PV contribute to the development of a sense of community for the students who participated in this study?” and “Does PV possess elements needed to create a learning community?” The work of Rovai (2002a) provides the foundation to explore the first question, while the work of Garrison et al. (2000) informs the second question.

**Sense of Community**

Rovai (2002a) concluded that a sense of community could be built in the online environment. Using his definition, an online classroom community is comprised of four distinct dimensions: (a) spirit, (b) trust, (c) interaction, and (d) common learning expectations. Threaded throughout the three emerging themes are elements of these dimensions.

**Spirit.** According to Rovai (2002a), “the first dimension, spirit, denotes recognition of membership in a community and the feelings of friendship, cohesion, and bonding that develop among learners as they enjoy one another and look forward to time spent together” (p. 3). Many students in this study reported that they enjoyed the PV activity and were eager to participate each week. It is reasonable to postulate that this eagerness to participate increased the time students spent together and promoted bonding. It is likely that, through early engagement,
PV promoted interaction and created community spirit.

It should be noted that not only did students in the course make an initial posting about a PV image; they would often respond to their classmates postings about the same image. It was in these exchanges that students got acquainted with one another and spent virtual time together. By supporting early and full course engagement perhaps PV was a vehicle for helping to create online community classroom spirit.

Trust. The second dimension of the online classroom community is trust, which according to Rovai is nurtured by a feeling of safeness (2002a). Trust is needed to “engender the open and caring environment needed to promote diverse and constructive interactions that empower learners to negotiate common understandings in their quest for learning new perspectives and ideas” (p. 5). Students in this study felt that the PV activity provided a safe learning environment that was not viewed as intimidating. Not only did this perceived safeness encourage full course engagement, but it allowed for candor in sharing perceptions. As one student noted, there were no “right or wrong answers… just your perceptions” in the PV activity. It is likely that the safe environment created by the PV teaching technology contributed to feelings of trust by encouraging personalized discussion and social connectedness. Also, since the PV activity was the first activity in each unit it helped to systematically create that non-intimidating tone each week so that by the end of the course the students were very comfortable in their virtual classroom.

Interaction. In discussing the third dimension, interaction, Rovai (2002a) noted that “learner interaction is an essential element of, but not the full solution to, the development of a sense of community” (p. 5). According to Rovai (2002a), interaction as related to sense of community may be task-driven or socio-emotional in origin. “Task-driven interaction is under the direct control of the instructor and often takes the form of responses to instructor-generated discussion topics” (Rovai, 2002a, p. 5). Fittingly, the PV activity was an instructor driven activity that encouraged participation in an instructor-generated discussion. Through visual stimulation the instructor, using PV, was able to enhance the learning environment by creating interest and inspiring creativeness that promoted rich discussion and interaction both between students and between the students and the instructor.

The socio-emotional element of PV should also be noted. The images selected as PV images were chosen in part for their potential emotional impact as well as for their relationship to the topic of the week. For example, the photo used for the unit on resistance to change was an image of an autumn nature scene in which it seemed that the world was resisting the decline into winter. The colors and image of struggle evident in the photo evoked an emotional response in the class which students identified with. The emotional trigger of the image resulted in shared discussions and multiple interactions around this common experience of “resistance” both in relation to the class content (organizational change) and in a personal sense as well.

Common learning expectations. The final dimension of the classroom community, common learning expectations, “reflects the commitment to a common educational purpose and epitomizes learner attitudes concerning the quality of learning” (Rovai, 2002a, p. 6). Rovai stresses that learning which occurs within the context of social interaction and work represents the common purpose of the community: shared values, goals, and satisfaction. Through purposeful interaction, PV, as a learning activity, supported situated learning. From the data, it appears that students felt that PV provided a social dimension to the online classroom that is not always present in online learning. Photovoice, as one student described it, “served to knit the class of learners together in a much different way.” Through the development of social connectedness, it appears that the PV activity assisted students in coming together and realizing a common purpose that supported common learning expectations.

Photovoice and a sense of community. Through participation in the PV activity, it appears that students did experience elements of the four dimensions of community as defined by Rovai (2002a). Analysis of the findings suggests that spirit, trust, interaction, and common learning expectations were identified in relation to the PV teaching technology, thus suggesting that PV did contribute to a sense of online community for the students who participated in this study.

Community of Inquiry Model

Using the COI model (Garrison et al., 2000), the key findings of this study are discussed more fully in terms of online community development. Each element of the model will be examined in association with the findings beginning with cognitive presence.

Cognitive presence. The element of cognitive presence is most basic to success in higher learning as it requires students to “construct meaning through sustained communication” (Garrison et al., 2000, p.4). Cognitive presence is established through a cycle of practical inquiry where participants move deliberately from a triggering event through to exploration, integration, and application (Garrison, 2006). PV, through the provision of a visual aid, created interest and inspired creativeness. This appears to have acted as a triggering event to provide a foundation for sustained discussion. The safe environment provided by the PV
activity allowed for the expression and exchange of personal interpretations and views. PV also allowed for resolution or application. As one student described, “PV helped begin to create the flow of words I would need each week to better understand the week’s key learnings, and to be able to contribute to the forums.” PV appears to have acted as a scaffolding strategy to facilitate further knowledge acquisition about a topic.

Social presence. “Social presence is defined as the ability of participants in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the other participants as ‘real people’” (Garrison et al., 2000, p. 4). The three main aspects of social presence are affective communications, open communications, and group cohesion (Garrison, 2006).

The social presence element of the COI model was facilitated by PV. PV related discussion allowed participants to introduce their personal characteristics to their classmates. This is evident in the students’ use of descriptors such as “allowed you a moment to glance into their world demonstrating a personal view” and “the array of responses, interpretations… [were] somewhat biographical” when describing PV. Student respondents in the study noted that PV permitted them to socially connect by getting to know their classmates through sharing ideas and meaningful discussion.

To further demonstrate the social nature of the PV teaching technology, the presence of the three categories of social presence from the COI model can be identified. First, throughout the PV postings, affective expressions and rich dialogue resulted. Second, PV promoted open communications. It was recognized by study participants that PV provided a “safe” and “non- intimidating” learning environment where expression was risk free. Third, group cohesion was achieved as the PV activity encouraged social connectedness between classmates. Through sharing of thoughts and personal perceptions, the students’ fostered relationships that encouraged learners to see the instructor and other participants as “real people.”

Teacher presence. Teaching presence in the COI model is comprised of two general functions which are likely to be the primary responsibility of the instructor. These two functions are course design and organization, and facilitation (Garrison et al., 2000). Students reportedly perceived PV as a method used by the instructor to introduce the weekly course topic and focus early discussion on course content. Through PV, the instructor was able to facilitate the students’ ability to identify the learning expectations weekly. The PV activity was predictably the first assignment each week during the course. It also helped to establish the teacher presence in terms of course organization. Study participants commented that they could depend on there being a PV activity first thing Monday morning and they valued this predictability and organization. They would “know” their instructor have been into the course because a new photo was posted with a thought-evoking question. The instructor’s ongoing involvement in the course was made evident by the appearance of a new PV weekly.

Photovoice and community of inquiry. The analysis of the PV teaching strategy using the COI Model suggests that PV possesses the elements needed to help create a learning community. Through PV, the students’ perceptions suggest that they may have been stimulated cognitively, linked with other classmates socially, and experienced the ongoing presence and leadership of their instructor.

Conclusion

Given the abundance of literature supporting the importance of the community construct in online teaching and learning, educators are challenged to develop and implement innovative and effective teaching strategies that create communities and maximize learning within the community context. From this study, it is evident that the PV teaching technology may potentially be a valuable teaching tool in helping to achieve this end. Many of the students’ comments reflected ways in which PV contributed to a sense of community and addressed the key elements of social, cognitive, and teacher presence. The findings suggest that PV may be valuable in helping to create learning communities. However, due to the limitations of this study, no definitive conclusions can be drawn.

While the findings of this study provide a good starting point for strategy specific investigations, there still remains many unanswered questions. For example, is there a relationship between PV and teacher style? How does learning style influence the student’s experience with PV? Is the potential value of PV related to the nature of the course content? Are some topics/courses more suitable to the PV teaching technology? These questions provide much fuel for ongoing research in this area.

To support the development of community in the online environment, instructors are challenged to develop and employ unique approaches such as the PV strategy. This research provides a starting point for further studies on PV as an innovative online instructional tool to facilitate the creation of community in distance education classrooms.

References


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From Face-to-Face to e-Mentoring: Does the “e” Add Any Value for Mentors?

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For many years, face-to-face peer mentoring has been a feature of learning support provided to first-year undergraduate students at one university in the UK. Building on the success of these initiatives, a scheme has been developed at this institution in which first-year undergraduates are mentored by second- and third-year students through a variety of media, both face-to-face and electronic. A research study was undertaken to evaluate the implementation of scheme, part of which involved undertaking a series of interviews with the e-mentors who participated over the course of two years. In presenting the findings, this paper discusses the commonalities that emerged and between face-to-face and e-mentoring; reflects on ways in which use of the electronic medium adds to the generic benefits of mentoring; shows that e-mentoring impacts differently on mentors and mentees; and highlights some of the particular challenges e-mentoring presents to mentors. The implications for the selection and training of mentors are discussed in the final section of the paper.

In 2002, a two-year pilot project was started to extend the University’s Peer Assisted Learning Scheme (PAL) in two of its schools to include an e-mentoring component using the university’s virtual learning environment (VLE), Blackboard - as the platform for the scheme, and the existing face-to-face schemes providing an initial template for the e-mentoring (Bidgood, 1994). An evaluation research project was undertaken by the university’s Widening Access and Success research team (WAS) which, in addition to providing support to staff and mentors, charted the schemes’ development and outcomes over the course of two years (2002-2004).

The aim of this paper is to report on one of the outcomes of the scheme: the benefits of e-mentoring for mentors. The paper explores this for those involved in mentoring generally, and then specifically, the benefits gained from the electronic component of mentoring. A brief overview of the literature is presented, followed by a description of key features of the e-mentoring schemes piloted at the university. The research methodology is then detailed followed by a discussion of the principal findings and their implications for mentoring programs. In common with previous studies of e-mentoring, the researchers found that the electronic dimension (the “e” in “e-mentoring”) does offer benefits to mentors, but that using an electronic medium of communication has different implications for the mentor and mentee.

The Literature: From Face to Face to e-Mentoring

Mentoring describes a relationship where an individual receives advice, coaching and/or counseling, usually from a senior student. Successful mentoring relationships may last several years and lead to collegial friendships. Shea (1997) suggested that the term “mentor” is now synonymous with the concept of trusted adviser, friend, teacher, and wise counselor. Guest (2000) argued that mentoring is a long-term process, involves sharing experiences and offering encouragement, provides the mentee (protégé) with a way of developing insight through reflection, and is a two-way relationship that results in mutual learning. Clutterbuck (2001) suggested that mentoring is linked to apprenticeships where the apprentice works alongside a master in the craft or industry. More recently, mentoring has emerged as an organizational strategy for enabling new employees to develop into their roles and into the organization (Meggison & Clutterbuck, 1995). Indeed, mentorship relationships are now a common feature of support and learning in many businesses (Meggison & Clutterbuck, 1995) and in teacher training (Clinard & Ariav, 1998).

Over time, definitions, explanations, and models of mentoring developed away from a sponsorship model to a more developmental model (Clutterbuck, 2001; Hamilton, 1993; Hay, 1995). The latter appears to be particularly appropriate to peer-mentoring schemes within higher education (Rawlings, 2002). As a developmental process, mentoring of new undergraduates by more experienced second- and third-year students appears to fit with the qualities described by Guest (2000), who described a mentor as a wiser, trusted person; one who is suitably experienced; one who has traveled the mentee’s path; a guide and someone who can stimulate professional development.
There is a body of literature concerned with evaluating mentoring programs more generally, and which includes the benefits to mentors as a secondary positive effect of mentoring (Huling & Resta, 2001). Combining these studies, it is possible to build a picture of the kinds of benefits that mentors might accrue from participating in a mentoring scheme across a diversity of industrial and academic settings. These include social benefits, such as the development of a network of supporters (Daresh, 2001), symbolic and psychological benefits and gains in personal prestige; respect and recognition from superiors as well as peers (Dutton, 2003). Participation in mentoring also appears to provide mentors with a sense of intrinsic satisfaction (Scott, 1998), enhanced self-esteem (Wollman-Bonilla, 1997), and confidence (Ehrich, Hansford & Tennent, 2004).

Mentoring has been found to help to improve mentors’ skills in providing constructive feedback to others; to develop their coaching skills and learning of up-to-date technical skills (Forret, 1996; Gilles & Wilson, 2004); to develop innovative approaches to their work (Ganser, 1997); and to promote reflection on, and improvement in, their own practice (Lopez-Real & Kwan, 2005). Clinard and Ariav (1998) found that mentoring of student teachers by experienced teachers had a positive effect on the mentors’ own classroom practices, but that mentors benefit from their mentoring activity when they have access to serious training and opportunities for ongoing support.

Perren (2003), in his review of academic literature, found little robust empirical evidence of successful e-mentoring. Although, some writers had highlighted the advantages of its low cost and flexibility against its limitations when dealing with interpersonal issues. A more recent review of the research literature on e-mentoring (Single & Single, 2005a) suggests that the benefits associated with e-mentoring are similar to those associated with face-to-face mentoring, including information and subject-matter transfer and psychosocial benefits such as self-esteem and confidence-building. In addition, studies of e-mentoring have identified benefits that are unique to the electronic dimension of mentoring. The most widely reported benefit is logistical; electronic communication enables mentoring relationships to transcend geographical and temporal boundaries, enabling mentoring facilities to be extended to those formerly unable to access them. E-mentoring programs can be run on a larger scale than would be feasible by relying solely on face-to-face interaction (Kasprisin, Single, Single, & Muller, 2003; Whiting & de Janaz, 2003) and with increased scale and flexibility comes the benefit of impartiality (Single & Single, 2005b). Studies of mentoring have repeatedly found that mentees find it beneficial to be paired up with a “complete stranger” from a different organization, rather than an individual with a vested interest in the mentee’s decisions. This impartiality allows the mentee to share self-doubts, express concerns and ask “silly questions,” in a way that is almost impossible when mentee and mentor are from the same organization (Single & Single 2005b). The electronic medium also attenuates status differences through the concealment of the social cues that might otherwise hamper communication making for more open, honest and supportive relationships (Single & Muller, 2001). The literature on e-mentoring also suggests that more thoughtful sharing is enabled by allowing participants the opportunity to think through questions and responses, and ensures greater safety when communicating about difficult and/or personal situations (Single & Single, 2005a).

From much of the published literature, it is difficult to determine the identity of the beneficiary of e-mentoring, suggesting an underlying assumption that mentors and mentees benefit in the same way from the electronic nature of e-mentoring. Our study attempts to test this assumption.

Woodd (1999) used the phrase “telementoring” to refer to “a mentoring relationship or program in which the primary form of contact between mentor and mentee is made through the use of telecommunications media such as e-mail, list servers, etc” (p. 140). For the purposes of this study, this university subscribed to a definition of e-mentoring from Single and Muller (2001):

A naturally occurring relationship or paired relationship within a program that is set up between a more senior/experienced individual (the mentor) and a lesser skilled individual (the mentee), primarily using electronic communications, and is intended to develop to grow the skills, knowledge and confidence of the lesser skilled individual to help him or her succeed.

(p. 108)

Description of the E-Mentoring Scheme and Implementation Procedures

The University e-mentoring scheme, named “e-Success,” was a structured program in which second- and third-year undergraduate students supported first-year undergraduates in their own discipline area at the same institution. The mentor was intended to act a “guide” for the first-year student (mentee) providing support in relation to both academic and life skills, and referring the mentee to other support services when appropriate.

The participants were enrolled in courses with either English or Sociology as core modules; they were primarily campus-based, enabling them to participate in
face-to-face mentoring. Geographical distance and time constraints were not the principal drivers in the decision to utilize the electronic medium; rather, it was prompted by literature related to the many potential benefits of on-line communication, for example, Salmon (2000). Salmon argued that while a lack of non-verbal and visual clues is seen by some as an inadequacy of online communication, it may also confer a range of benefits. The absence of face-to-face contact means that participants are not distracted by social games and can disagree without raised emotions, with all participants able to comfortably contribute.

Combining e-Mentoring and Face-to-Face Mentoring

The scheme made use of both electronic media (e-mail, discussion boards) and face-to-face sessions. A number of “group areas” were set up on Blackboard, specifically for the purpose of mentoring. Each mentor had his or her own “group area” (Clutterbuck, 2001) shared with his/her mentees. In addition, all students undertaking the module had access to a discussion forum, called “the common room.” A third group area, “mentors’ café,” was created for mentors’ use alone to support interaction between mentors, the module leaders, and the research team. It was used by the research team to upload e-mail templates, expenses claim forms, information about the project, and flyers, as well as to discuss issues with mentors.

In common with other commercial VLEs, Blackboard offers discussion boards, e-mail, and synchronous (“chat”) facilities. Mentors were given the option of using any or all of these. Venues were identified by staff for mentors and mentees to meet face-to-face including the Academic Skills Centre (ASC), a faculty-wide “drop-in” facility (formerly manned solely by academic staff), the faculty language laboratories, and a dedicated mentoring/seminar room.

The exact blending of face-to-face and “e” components was left up to the mentors and mentees themselves. Sometimes mentoring took place through email alone; in other cases, face-to-face interaction dominated while electronic communication played a minimal role, a manner consistent with existing PAL schemes. In other cases, face-to-face and electronic media were combined in equal measure. The research team and lecturers did not prescribe any specific model; rather, they sought to offer mentors and mentees a greater range of options for mentoring, in acknowledgement of the diversity of life circumstances and communication preferences of students.

In all cases, the electronic interaction took place via e-mail. The discussion board was little used by mentees, in spite of repeated efforts by mentors to encourage their use and mentors’ own postings to mentees in this space. Synchronous “chat” tools were not used by either mentors or mentees. When email was used in relation to the course, communication consisted in soliciting and proffering general information, advice and shorter academic queries; for more detailed queries and assistance, face-to-face interaction was preferred. E-mail was used occasionally to circulate general information to all first year students that were offered the mentoring.

Face-to-face interaction was the principal means of providing emotional support and helping students to develop their confidence, although a minority preferred to use e-mail in order to discuss the personal issues affecting their progress. It was also important to engage students with the scheme; for example, Jim, a mentor and second-year student reading Sociology and Politics, reported how he had found the face-to-face sessions helpful in giving a good impression of the mentors’ capabilities and explaining how students could benefit from a mentor:

Until that [first face-to-face] session, they weren’t aware of what we were there to do… we tried to get across as best as we could what we were trying to achieve, and they were certainly responsive, they took down our details. (Jim)

For some, the electronic component of e-mentoring was only useful as a means to arrange face-to-face meetings with their mentor. Where questions between the two were found to be of potential use to the entire group, these were posted the discussion board in the “Common Room” discussion on Blackboard. They also agreed that messages of a more personal nature would be sent by e-mail, rather than through the discussion facilities in the VLE.

Selecting and Allocating Mentors to Mentees

The lecturers involved in the program selected mentors on a personal basis, following the PAL model (as opposed, for example, to advertising openly across the faculty). They identified second- and third-year students as potential mentors who they felt had both sound academic and interpersonal skills, as well as good ICT skills. Educational history, age, and other personal characteristics were not considered critical factors. A flyer prepared by the research team provided information about the mentoring scheme to assist the lecturers in approaching and enrolling potential mentors.

Like PAL, e-Success mentoring did not target individual “at risk students” but “high risk courses” (i.e., those modules with low student retention rates). In common with PAL again, each e-mentor worked with several students and participation was voluntary. The number of mentees to mentors varied between four and
seven. On the whole, mentees only visited a mentor other than their own for one-off “trouble-shooting” sessions. Continuity was a feature of electronic mentoring relationships.

Training e-Mentors

Eight hours of mainly face-to-face training over three days were provided with the third session involved on-line exercises (primarily on using the discussion boards). Training included giving information about the e-Success scheme so that students could make an informed decision about participating. The remainder of the sessions included mentors’ duties, a series of group-work practical mentoring activities, and briefing by module leaders about the contents of the modules and what they expected of the mentors. The final part of the training focused on the use of the interactive tools in the VLE and included a hands-on training exercise in on-line mentoring. The mentors were subsequently employed as student helpers in induction week so as to raise the profile of mentors and mentoring; also, during the same week, a “welcome to mentoring” session, with suitable refreshments was organized.

Mentees did not undertake any formal training, but, like all new students at the university, they received a leaflet introducing them to the VLE during their induction week. During this period, a one-hour session was held in which it was explained how they could use a mentor and the benefits of mentoring. Kasprisin, Single, Single, and Muller (2003) identified this as an essential element of the training of participants in a mentoring program.

Supporting e-Mentors: e-Mentoring Materials and Coaching

The research team developed a range of materials to assist the mentors, including pre-prepared e-mail templates, activity sheets, and a set of general guidelines. The e-mail templates were designed for mentors to initiate communication with, and invite contributions from, mentees on a weekly basis. These played a similar role to the coaching messages used by Single and Muller (2001), which also contained suggestions for discussion between mentor and mentee and mentoring tips. They followed the module content closely, making reference to the course contents, titles, and deadlines for assignments and were adapted by the mentor as they saw fit.

Other forms of support by the research team included occasional informal lunches with mentors, often on a one-to-one basis, to monitor progress and provide on-going support and advice. Furthermore, mentors periodically dropped in to the researchers’ office for assistance with technology-related issues. Mentors also supported each other; this was formalized when a “mentor-buddy” system was put into place. Networking among mentors from different years/levels and subject areas was encouraged by the research team; end of term social events were organized with all mentors and staff involved in the e-Success scheme invited.

Researching the e-Mentoring Schemes

The impact of e-mentoring on mentors was evaluated through a continuous process of communication, data collection, and analysis during the two-year period from July 2002– June 2004. Data from the 21 participating mentors was gathered from end of year, one-to-one interviews (May 2003; May/June 2004) and regular formal group discussions (end of each semester: December 2002; April 2003; December 2003; February 2004). Informal meetings with mentors and participating staff were held throughout the two years.

The one-to-one interviews were semi-structured and aimed to encourage mentors to describe their experiences in as much depth and detail as possible. In particular, questions were asked about the differences that they had experienced between face-to-face mentoring and e-mentoring, and the different electronic media they had used (discussion board, email, chat). They were also asked to articulate how they felt they benefited from being a mentor. Data collection from group discussions included inviting mentors to describe their mentoring activities over the previous semester, the kinds of issues raised and tackled in mentoring sessions, and reflections on their experiences of mentoring. Both the group discussions and interviews were tape recorded, subsequently transcribed in full, and analyzed using the qualitative data analysis software Nvivo. Using a grounded theory approach (Glaser & Strauss, 1967), categories (themes) were developed from the data and were refined into a coding scheme. A summary of recurring themes is given in Table 1 and expounded below.

Theme 1: Generic Mentoring Benefits

This mentoring scheme reflects similar benefits for mentors as reported in the literature and include gaining organization and communication skills, increased opportunities for socializing and networking, reflecting on one’s own performance, and personal satisfaction. Mentors described how they felt the mentoring scheme had helped them to develop organization and communication skills.
Table 1
Themes Arising from Interviews and Group Discussions with Mentors

<table>
<thead>
<tr>
<th>Main Themes</th>
<th>Sub Themes</th>
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<tbody>
<tr>
<td>Theme 1: Generic mentoring benefits</td>
<td>Organization and communication skills.</td>
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<td></td>
<td>Increased opportunities for socializing and networking.</td>
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<td></td>
<td>Reflection on performance and personal satisfaction.</td>
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<td>Theme 2: Benefits of the electronic dimension of mentoring</td>
<td>Fitting e-mentoring in a busy undergraduate schedule.</td>
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<td>Impersonality of interaction.</td>
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<td>Impartiality in electronic relationships.</td>
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<td>Targeting and reaching specific students without the risk of stigmatizing them.</td>
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<td></td>
<td>Managing mentee expectations/demands more easily.</td>
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<tr>
<td>Theme 3: The challenges of e-mentoring</td>
<td>Thoughtfulness and clarity of electronic communication dependent on the skills of mentor and mentee.</td>
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<td>Criteria for selection of e-mentors.</td>
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<td></td>
<td>Technology as a potential barrier to participation in e-mentoring.</td>
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</table>

It was quite good to try and make the effort to communicate and organize so many people. I am sure that this will be good for me later in life, for example if I become a manager or something like that. (Thomas)

Just the way you have to put things in your e-mail to your protégés [mentees]. You learn not to sound patronizing or anything like that. It makes you think. (Hannah)

Increased opportunities for socializing and networking were also identified:

Yes I certainly think it has been enlightening. I think I’ve taken something from it. I’ve met new people as well....it was a way of getting involved in the community, if you like, in the university. (Jack)

Probably being able to build up friendships … I got to know more out of my year. Working together with the other mentors was quite nice – you could talk to them. (Natalie)

Participating in the mentoring program also helped mentors to reflect upon, and improve, their own performance.

I’ve really enjoyed it…and it’s stimulated me, it’s given me an idea of what I want to do. I’ve learnt a lot from it, a lot about myself and my own methods and how to learn, how to write, so my stuff has improved and so has my mark alongside it… in identifying problems in other’s work I can see problems in mine so yes it’s worked out quite well for me, in terms of my final grade. (Linda)

[It has made a difference to how I learn and study] because …sometimes if they are doing something wrong you can pick it up in your work that you wouldn’t have necessarily seen. (Louise)

Finally, mentors identified that participation in the mentoring program gave them personal satisfaction.

The plus side is definitely the feeling of actually helping people, which is nice. To feel that you could at least potentially make a difference. (Simon)

…it’s a very nice feeling when you first meet someone, and they’re struggling and upset and they’re stressed, and you can help them to feel calm and see the wider picture…You do see a difference in their behavior and how they are thinking, and they’re happy at the end of it, which is really nice. (Louise)

One of the comments that was said to me at the end …”You helped me understand Sociology but more than that you helped me understand that I was better than I had perceived myself”. So I’d actually hit the target and it was lovely. That comment that was my inspiration. (Elaine)

Theme 2: Benefits of the Electronic Dimension of Mentoring

The research also illuminated the benefits of the electronic dimension of mentoring. Some of these reflect the literature, including being able to fit e-mentoring into a busy schedule, and how e-mentoring helped to minimize the status difference between mentor and mentee. However, other findings emerged that do not appear in previous literature including being able to target specific students without stigmatizing them, being able to reach out to more students and managing mentees expectations.

Fitting e-mentoring in a busy undergraduate schedule. The flexibility in mentoring hours through e-mentoring emerged from the research as a positive factor for mentors. Flexibility was one of the factors that had attracted a number of mentors to the scheme, particularly those with dependants and in part-time
employment. Simone, a Linguistics and Languages mature student with two children aged 5 and 9, was such a mentor. She began attending the mentees’ regular seminars as an opportunity for face-to-face mentoring. However, she soon began to feel that the seminar lecturer did not make effective use of her time and started to use this venue less frequently. She did not, however, withdraw from the program altogether, choosing instead to continue mentoring in the university’s Academic Skills Centre (ASC), which she found more productive. She also decided to more fully exploit the capacities of the electronic environment at her disposal: she set up her home page and wrote her personal profile, with her photograph and contact details on Blackboard. Other mentors commented:

think that is the advantage of the whole [e-mentoring] thing. It’s a convenience for them and us… It’s great to have a meeting every now and again just to catch up informally. That is the beauty of the e-thing, it doesn’t take much time. You don’t have to run round as much. (Nicola)

I never found fitting it [e-mentoring] around my studies a problem - you always have a moment. The real problem came when I tried to get everyone to meet up. (Jenny)

Impersonality of interaction. Mentors’ opinions were mixed regarding the impersonality of online interaction. It was clearly valued by some mentors, Hannah, for example, felt she could be more socially effective in an online environment. When mentors were first instructed to make contacts with their seminar groups face-to-face, she expressed that she preferred “not to do the face-to-face meetings.” Others mentors were ambivalent towards the impersonality of electronic communication; Nicola, an English language mentor, commented that an advantage of e-mentoring was that: “…it is impersonal. You don’t have to reveal everything…”. On the other hand, she continued,

There is also the disadvantage that it is impersonal. Maybe a drop-in session would be the best some of the time because you know that there is someone there who you can talk to in person. (Nicola)

Susan, from her experiences as both a mentor and mentee, highlighted that impersonality had different implications for mentor and mentee:

[As a mentor] I prefer going into the session and saying, “Hello, I’m so and so” because you can get an idea of what they’re thinking, and you can tell if they’re being lazy or what their struggles are. I remember once pointing something out to someone and she said “Huh, I see what you mean…” and she didn’t - I saw her frown and I saw a very vacant face so it meant I could say: “Ok, well maybe we should work on this a little bit more”; If you are just doing something on the discussion board or the e-mail you’re just passing on information and hoping that they are taking it in. But then again, discussion boards are impersonal …face-to-face, you are looking at their facial expression thinking, “they’re thinking this is rubbish” whereas on discussion boards or e-mail, you don’t have to have that boundary of wondering what your mentor is thinking. (Susan)

This suggests that the impersonality of the electronic medium may be a perceived as beneficial for mentees, but less so for mentors, highlighting that mentor and mentee do not benefit equally from the aspects of electronic communication and that it has different implications for each.

Impartiality in electronic relationships. Mentors did not generally comment on the advantages of the electronic medium in overcoming status differences, which other researchers found to be a major advantage of electronic mentoring (Single & Muller, 2001). One exception was Nicola, who felt that the similarities between herself and students (in terms of age, in this instance), undermined her ability to establish the authority that she felt was necessary for mentoring relationships to be effective. She recalled her experience of seminar groups: “I had the feeling I was one of the students.” She reported unease at being asked by the seminar students whether she was their mentor or not, and said she was taken aback when students left the seminar room after the lecturer left. This suggests that issues of status may be as significant for mentors as they are for mentees, and reflects that some mentors perceive their role within a sponsorship model of mentoring as described by Hamilton (1993).

Targeting and reaching specific students without the risk of stigmatizing them. Although face-to-face introductions in the induction week were important for increasing the visibility of the scheme, some students would not have taken advantage of the e-Success scheme had they not been contacted electronically. Mentors found that the electronic medium was effective as a means to target specific students without the risk of singling students out.

Catherine, a second year student studying Sociology and Linguistics, worked as a mentor during the academic year 2003 – 2004. Her mentoring approach combined face-to-face and electronic methods. She took part in weekly face-to-face seminars, managed a discussion forum on Blackboard, and e-mailed students on a regular basis. Catherine e-mailed each student in her seminar group individually,
asking about their assignments and coursework, and offering to help. She particularly targeted students who had not handed in assignments. She felt the method worked well; a number of students seemed anxious that she had e-mailed them, while most of them were

…really pleased actually about the e-mail because I sent each an individual e-mail…since I sent the e-mails out, I’ve been slowly getting replies back from them saying, basically “Thank you” and then explaining what the problem is… asking me what they can do or…telling me their problems and a lot of personal things and [reasons] why they haven’t been able to get their assignments in. (Catherine)

Managing mentee expectations/demands more easily. A small number of mentors reported feeling uncomfortable in the ASC, as this was a place where students from discipline areas other than their own and students other than their allocated mentees could approach them. These mentors felt that students’ expectations of them in terms of skills and experience, often exceeded – or risked exceeding - their current abilities and experience.

Jim was allocated two seminar groups in each semester. He also attended the ASC to support students who brought their assignment work, seeking advice on the content of the material. Jim, however, was unhappy about having been in a situation where students were seeking his advice on content and on subject areas outside his expertise. By contrast, he found the dedicated mentoring room in the faculty building, e-mail, and discussion boards, far more comfortable venues and media for mentoring.

This was not the case for all mentors. Linda, for instance, was keen to assist students from other discipline areas (within the field of arts and social sciences). She would point out the limits of her expertise to students seeking her help, while advising them as far as she could by giving examples from her own subject area.

Theme 3: The Challenges of e-Mentoring

Concern was expressed by e-mentors about accepting uncritically the view that the electronic medium necessarily made for clearer, more “thoughtful” communication than can be achieved face-to-face. Additionally, the experience of mentors showed that electronic communication can be ambiguous, and can require clarification through a face-to-face meeting. The thoughtfulness and clarity of electronic communication depended on the skills of both the mentor and mentee.

Not all mentors were comfortable with interaction in the electronic medium. Indeed, many felt they had to “convert” the electronic into face-to-face. This suggests that selection criteria for mentors may need to be rethought when the scheme involves e-mentoring. A mentor with good face-to-face skills may not be as effective when communicating electronically. Conversely, a mentor can feel self-conscious in face-to-face interaction yet may be highly skilled at establishing and maintaining relationships electronically, and communicating clearly in this medium.

Finally, the data showed that technology could act as a barrier to participation in the scheme. While academic staff tended to assume high levels of computer literacy among the young undergraduates, this was not supported by the evidence from the study. Almost all the mentors had encountered students who did not know how to use Blackboard and/or the University’s e-mail system. Mentors, mature and young, also commented on their own difficulties with the technology:

I thought [the university] computer system was quite daunting at first. I remember Steven showing me how to use it because it is a different lay-out and various programmes to be used and how to get on to the internet as well as how to get onto Blackboard from the Home Page. I think they [students] will probably need to be shown that. They will probably be more IT literate than I was as they are all doing IT at school now. (Gwen)

Any assumption that e-mentoring brings greater accessibility is, therefore, questionable. There are training implications for both mentors and mentees. One solution, that mentors in this scheme devised and adopted, is for mentors themselves to identify any ICT training needs among their mentees and conduct a hands-on ICT induction for the latter when necessary. This presupposes that mentors themselves will be given a thorough training in the use of whichever electronic media are used for mentoring.

Conclusion

This study broadly supports the literature in finding that the benefits to mentors of face-to-face and e-mentoring are largely similar. As in the former, participation in the latter gave a number of positive outcomes including the development of organizational and communications skills, greater opportunities to network and socialize, an incentive to reflection - which in turn, led to improvements in their own practice and performance, and a sense of personal satisfaction. This work also supports the thesis that the electronic dimension offers added benefits to mentors such as fitting into a busy schedule and minimizing status
differences with mentees. Other findings give additional insights: how the electronic medium allowed for mentoring to target students without stigmatizing them, how e-mentoring reached out to more students, and how it enabled mentors to better manage the expectations of mentees.

The attenuation of status differences brought about by the electronic medium, allowing for issues including educational level, authority, and age to not impinge on mentoring activities were clearly advantageous for both mentor and mentee. On the other hand, the perceived impersonality of this form of mentoring was seen to aid mentor and mentee within the mentoring relationship and that when trying to illuminate the benefits of e-mentoring, each time a benefit is uncovered, we need to ask, “Who is benefiting?”

Our findings suggest that while e-mentoring may be more accessible to those for whom time and geographical distance are obstacles to participation, it can act as a barrier to participation in a mentoring scheme through making it less accessible for those unfamiliar with computers and the Internet technology. Claims that the “e” ipso facto makes e-mentoring more accessible are thus arguable. However, the challenges were not just technological; to be effective in this new medium required skills other than those of a good “face-to-face” mentor. Indeed, several mentors were uncomfortable with interaction via email and discussion boards, even where they were technologically proficient. Our findings suggest that universities need to rethink the qualities of a “good e-mentor” and whether these are the same as those of a face-to-face mentor, but with added ICT skills. This raises questions about whether the emphasis in selecting e-mentors should be on written communication skills, and not (or not only) oral ones. This study challenges the view that the electronic medium necessarily makes for clearer, more “thoughtful” communication than can be achieved face-to-face.

We conclude that implementation of e-mentoring schemes should include a thorough training of mentors in the use of ICT and an audit of mentee ICT familiarity needs with mentee training provided as part of any e-mentoring program. With such provisions in place, e-mentoring may be a step closer to living up to the many expectations of this increasingly popular form of educational and professional development support.

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Learner-Driven EFL Curriculum Development at the Classroom Level

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This qualitative study examines the learner-directed motives that cause English as a Foreign Language (EFL) teachers to approach curriculum differently, as curriculum-transmitters, curriculum-developers, or curriculum-makers. This study’s conceptual framework was grounded in teacher curriculum development, curriculum implementation, curriculum-making, student cognitive and affective change, and social constructivism. The study made use of the qualitative paradigm at the levels of ontology (multiple curriculum realities), epistemology (interaction with rather than detachment from respondents), and methodology (using idiographic methodology and instruments).

The research design involved qualitative case studies (Yin, 1994) as the research strategy and general interviews, pre- and post-lesson interviews, group interviews, and participant observation. Grounded theory was the data analysis approach. Based on work with college students from various countries, the study concluded that learner-directed motives, particularly student schematic, affective, pragmatic, and subject-content needs had significantly driven EFL teachers to implement various curricula. Learner content styles were also found to have an impact on the ways teachers approach curriculum. The results indicated positive relationships between learner-directed motives and the teacher curriculum-developer and curriculum-maker’s approaches. In contrast, negative relationships between learner-directed motives and the teacher curriculum-transmitter’s approach were established. The study provides recommendations for curriculum development, teacher education and future research.

Why do some teachers opt for developing curriculum, while others do not? Connelly and Clandinin (1988), Clandinin and Connelly (1992, 1998), and Shawer (2003) maintained that teachers approach curriculum in different ways: as curriculum-transmitters, curriculum-developers, or curriculum-makers. No doubt that instructors in general and college instructors in particular are driven by various motives to make different curricular decisions. Such motives should be identified for several reasons. For example, Doyle (1992), Remillard (1999), Eisner (2002), Craig (2006), Schultz and Oyler (2006), and Randolph, Duffy, and Matingly (2007) indicated that different curricular decisions lead teachers to run different curricula which impacts differently on teachers, learners, and the taught curriculum. For similar reasons, Cochran-Smith and Lytle (1999) encouraged teachers to become researchers not only to develop curricula and improve schools, but also to “generate theories grounded in practice” (p. 15).

In essence, this study’s teachers’ curriculum development at the classroom level embodies Cohen and Ball’s (1999) notion of instructional capacity that means “the interactions among teachers and students around curriculum materials” (p. 2). Cohen and Ball (1999), however, stressed that the teacher plays the pivotal role, since “teachers’ knowledge, experience, and skills affect the interactions of students and materials in ways that neither students nor materials can” (p. 4). The outcome of this interaction is the actual curriculum. “Curriculum is often developed in advance, but students’ and teachers’ interactions with this material comprise the enacted-which is to say, the actual or effective-curriculum” (p. 4).

Doyle (1992) termed the curriculum constructed out of this interaction as the enacted curriculum. Doyle also emphasised that it is teachers who turn curriculum knowledge which is decided on at the institutional level into pedagogy (experienced curriculum).

Snyder, Bolin, and Zumwalt (1992) echoed this discussion by suggesting that teachers approach curriculum in three different ways. One category of teachers follows the “fidelity approach,” where curriculum knowledge is defined for teachers from outside. This means that curriculum change starts from the centre to the periphery, whereas the teacher’s role is restricted to delivering curriculum according to specific instructions. Snyder et al. (1992) indicated that a second category of teachers follows the “mutual-adaptation” approach, which is a process “whereby adjustments in a curriculum are made by curriculum developers and those who use it in the school” (p. 410). Curriculum knowledge does not differ much from the fidelity approach, which outside experts still provide. However, the adaptation approach differs in that it involves changes and adjustments that teachers and developers make. Moreover, curriculum change is no longer linear, as teachers adapt the curriculum. The teachers’ role has become active because they adapt curriculum to their contexts.

Doyle (1992) concurred with Snyder et al. (1992) that a third creative category of teachers adopts the “enactment” approach, where curriculum is “jointly created and jointly and individually experienced by students and teacher” (pp. 428-429). Herein, the curriculum may or may not hinge on the external curriculum; while curriculum knowledge becomes an ongoing process of construction rather than a product.
Curriculum change is no longer about implementing or adapting curriculum, but “a process of growth for teachers and students, a change in thinking and practice” (p. 429). The teacher’s role ranges from using, adapting, and supplementing external curriculum to making curriculum. Wells (1999) maintained that this enactment approach reflects social constructivism.

**Constructivism and Teachers’ Curriculum Development**

Pollard and Triggs (1997) determined that teachers’ curriculum development is grounded in social constructivism that assumes that “people learn through an interaction between thought and experience and the sequential development of more complex cognitive structures” (p. 211). Furthermore, Terwel (1999) maintained that in this constructivist curriculum, knowledge acquisition is “active and strategic, focused on many factors, including problems of understanding, diversity of expertise, learning styles and interests” (p. 196). In addition, Terwel (2005) suggested that successful curriculum projects help students to develop through constructing curriculum out of their present experiences.

Vygotsky’s (1978) zone of proximal development acts as the main drive for teachers’ curriculum development, where the teachers’ role is to explore “the distance between the [students’] actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers” (p. 86). Constructivist teachers build on learners’ current understanding, interests, and needs (Richardson, 1997). Wells (1999) further suggested that constructivist teachers look for a “window of potential learning that lies between what... [students] can do unaided and what... [they] can achieve with help. It is when appropriately pitched in this zone that instruction can optimally benefit the learner” (p. 296).

Investigators (Gumundsdottir, 1990; Heaton, 1993; Lee, 1995; Marker & Mehlinger, 1992; Remillard, 1999; Shawer, 2001, 2003; Woods, 1991) found that teachers develop curriculum to respond to student needs, motivation and performance. Further studies (Beck & Kosnik, 2001; Clemente, Ramirez, & Dominguez, 2000; Eldridge, 1998) revealed that effective teachers are those who develop curriculum to respond to their contexts. Despite the apparent importance of learner-directed factors, previous researchers have not studied the relationship between teachers’ curriculum approaches and learner-directed motives. The study takes learner-directed/centered motives as any student-related factors which lead teachers to supplement, adapt, or even change the official curriculum to match students’ characteristics.

Precisely, this study sought to answer these two research questions:

1. What are the learner-directed motives that lead teachers to transmit, develop, or make their curriculum?
2. How do the learner-directed motives and teacher curriculum approaches (transmitter/developer/maker) correlate?

**Method**

The study used the qualitative paradigm to explore rather than verify the differences between teacher curriculum conceptualizations, experiences, and strategies in their different contexts. The positivist standardization of context variables was neither consonant with the study’s ontological perspective (multiple curriculum realities; Jackson, 1992); nor with its epistemological standpoint (interaction with rather than detachment from respondents; Clarke, 1999; Guba & Lincoln, 1994; Parker, 1997). This is why qualitative case-studies (methodology/strategy) were used to embody these qualitative principles in order to retain the holistic nature of the phenomena in their natural context by studying teachers in their settings with emphasis on natural observations (Stake, 1995; Yin 1994).

**Design and Procedure**

The primary (first) author arranged for meetings with teachers through college directors, where he explained the research purpose and relevance to teachers and assured them of complete confidentiality and anonymity (Sapsford & Abbott, 1996). As a result, a timeframe was established allowing fieldwork to extend over three months at each college. Sampling was purposive to address the case-study criteria; where every case was selected “because it serves the real purpose and objectives of the researcher of discovering, gaining insight, and understanding into a particular chosen phenomenon” (Burns, 2000, p. 465).

The sample was initially determined as 6 English as a foreign language (EFL) teachers who depart from curriculum materials. This involved 2 teachers who had both training (EFL qualifications) and experience (more than three years). Two trained teachers were also needed, but they had to have no teaching experience (less than two months), in order to assess the impact of the experience factor. In contrast, 2 experienced teachers who had no training (EFL qualification) were also needed to assess the impact of the training factor.

According to Strauss and Corbin (1998), theoretical sampling completely changed the original sampling plan in line with the emerging themes into
three new categories of teachers: curriculum transmitters, developers, and makers. *Curriculum-transmitters* delivered prescribed curriculum materials and topics (the student’s textbook and the teacher’s guide) without introducing new materials or topics and without making significant changes or adaptations. *Curriculum-developers* developed curriculum through prescribed curriculum materials and topics, introduced new materials and topics, and made significant curriculum changes and adaptations. *Curriculum-makers* developed curriculum without reference to official curriculum materials and topics. The following paragraphs explain how the three categories of teachers emerged and developed.

The primary researcher started with 3 teachers who were originally selected as trained and experienced in EFL teaching, and who usually used and developed curriculum materials (according to the original sampling plan). Only 1 teacher met the criteria of the original sample, but the other 2 differed in that they developed curriculum without using curriculum materials. They assessed student needs and the resulting topics constituted their curriculum. The primary researcher needed a third of this type. He could find 3 in addition to these 2. He started observing the 3 teachers, but chose 1 and stopped observing the other 2, due to time constraints. The initial analysis of the data gathered from these 3 teachers (2+1) showed their curriculum development without using curriculum materials. These three teachers were categorized as *curriculum-makers*.

The reader may remember that 1 teacher was left from the first 3 teachers whom the primary researcher started with who used, supplemented, and adapted curriculum materials. Three more were needed, since that was the study’s original sample and purpose. Five were found who (through interviews) met the criteria of the original sample, but classroom observation showed that only 4 were a match. These 4 teachers in addition to the 1 who differed from the first 3 (1+4) were termed *curriculum-developers*.

Again, the reader may remember the teacher who closely transmitted the textbook content and who was different from the 5 teachers. Because this teacher approached curriculum differently, 2 more were needed to allow for comparisons, but only 1 teacher was found. These 2 teachers (1+1) were termed *curriculum-transmitters*.

This way, theoretical sampling provided the rationale for choosing to study different teachers in these identified categories. In open coding/ sampling, all that the teachers offered was studied to allow for themes to emerge that broadened the study’s scope in axial coding into three categories instead of one. In selective coding, categories were saturated by returning to the field to collect specific data for addressing certain aspects of the emerging themes (Glaser & Strauss, 1967; Strauss & Corbin, 1998). Consequently, the 3 teachers who developed curriculum without using curriculum materials constituted the *curriculum-makers’* category; the 5 who developed curriculum through developing prescribed materials formed the *curriculum-developers’* category, whereas the 2 teachers who made no significant curriculum developments fell into the *curriculum-transmitters’* category.

**Data Collection**

One-to-one interviews, group interviews, and participant observation were the research tools. One-to-one interviews involved general and pre/post-observation interviews. General interviews (Appendix A) were used to reveal each teacher’s motives behind her particular curriculum approach. Interviews were semi-structured to probe for and follow up on the responses, allow for interaction and clarify meaning (Blaikie, 2000). Pre- and post-observed lesson interviews (Appendix B) were to clarify the rationales behind selecting each lesson, validate observational data as well as to uncover the elements of everyday planning and how and why teachers decided on them. Post-lesson interviews were to identify why teachers changed lesson plans and to discuss emerging issues derived from each observed lesson.

Group interviews (Appendix C) were necessary to compare students’ responses (with each other and with teacher responses) about how teachers approached curriculum; to draw conclusions about emerging issues in their presence; and to validate the data collected from teachers (Cohen, Manion, & Morrison, 2000; Morgan, 1988; Watts & Ebbutt, 1987). Each general interview lasted for about 65 minutes and were all conducted at each teacher’s college. Pre- and post-lesson interviews were short “checking” exercises, ranging between 3 to 10 minutes.

Data trustworthiness (validity) and dependability (reliability) were handled in different ways. Interviews were transcribed verbatim (Kvale, 1996) and content validated (Bloom, Fischer, & Orme, 1995) through 10 experienced teachers who modified the wording and number of some items. Four educational researchers matched the research purpose with the interview questions. Piloting led to adding some questions and adapting a few others. Further developments in the research focuses led to other changes to interview questions (Cohen et al., 2000).

Participant observation was to provide natural pictures of the context where teachers constructed curriculum, validate meanings, and capture the interactions (Yin, 1994). Each teacher was observed between 15 to 22 times. Narrative records of
observations were made (Stake, 1995). Data dependability and trustworthiness were maintained through methodological triangulation, where observations and interviews were directed to gather the same information. Tape-recordings of classroom procedures helped in capturing class interactions as accurately as possible (Cohen et al., 2000). The results were given to teachers who accepted our interpretation of the data (Davies, 1999).

Data Analysis

Grounded theory was used to generate theory in a process of open, axial and selective coding. Open coding that included line-by-line, whole-paragraph and whole-document analyses resulted in: naming concepts, assigning categories, and developing properties (Corbin & Strauss, 1990). Concepts were developed by naming events through three techniques: “in-vivo,” “abstracting,” and “borrowing from the literature.” In-vivo concepts were taken from the respondents’ words, like textbook as “skeleton.” Through abstracting, events were named on the basis of what was understood from the data, like “schematic needs.” Borrowing from the literature occurred when the data matched a “literature” concept that “worked” and “fitted,” like “material-writing.” The data was examined and whatever fell under a named concept was named after it (Strauss & Corbin, 1998).

Categories were developed through connecting related concepts under a wider concept. Concepts like “predetermined content-style,” “combined content-style,” and “unpredictable content-style” were grouped under the “content-style” category. Properties were the group of concepts falling under one category. Axial coding involved grouping sub-categories developed in open coding around one axis (category). Selective coding involved refining, connecting, and integrating categories into a coherent theory that reflected all elements of analysis (Strauss & Corbin, 1998).

The Context of the EFL Curriculum

This section highlights the context of teachers who were based in three different international language centres (colleges). The categories developed from the analysis were used to present the data around teacher experience and class population; teacher training; teacher development; curriculum framework; and student grouping.

Teacher Experience and Class Population

Mark, Linda, Carol, Leslie, and Mary worked in Centre One. Mary was in her 40s and taught EFL for 8 years. Her intermediate level class included 11 females and 6 males. Mark was in his 30s and taught EFL for 3 years. His classroom was comprised of 10 upper-intermediate students, 4 males and 6 females. Leslie was in her fourth decade and taught English as a Foreign Language (EFL) for 10 years. Her intermediate level class had 9 females and 8 males. Linda was also in her 40s and taught EFL for eight years. Her advanced class was comprised of 8 males and 7 females. Carol (also 40-years old) taught EFL for 11 years. Her pre-advanced class was comprised of 7 males and 8 females.

Terry and Shelly who were in their 50s worked in Centre Two. Terry taught EFL for 9 years. His upper-intermediate class was comprised of 16 students, mostly females. Shelly taught EFL for 20 years. Her pre-intermediate classroom included 10 students, predominantly females. Ericka, Nicole, and Rebecca worked in Centre Three. Rebecca was 50 years old and taught EFL for 20 years. Her pre-intermediate classroom was comprised of 7 females and 9 males. Nicole and Ericka were in their 30s. Nicole taught EFL for 7 years. Her advanced class was comprised of 6 females and 5 males. Ericka taught EFL for 7 years. Her pre-advanced class also involved 6 females and 5 males.

Teacher Training

All teachers completed EFL training before starting to teach in Centre One. Mary received the Royal Society of Arts (RSA) Diploma in Teaching English as a Foreign Language (TEFL), while Leslie received a degree in linguistics. Linda received a bachelor’s degree in modern language studies, and a Post-Graduate Certificate in Education (PGCE) and certificate in TEFL, while Carol received a PGCE and the RSA Diploma. Mark obtained the Certificate in English Language Teaching to Adults (CELTA) and the Diploma in English Language Teaching to Adults (DELTA) in EFL. In Centre Two, Terry earned a certificate in Teaching English to Speakers of Other Languages (TESOL), while Shelly trained to teach art, earned the RSA Diploma, and acquired mainstream and EFL training. In regards to Centre Three, Ericka earned her first degree and the RSA Diploma, Nicole completed a Teaching English as a Foreign Language (TEFL) methodology course, and Rebecca acquired EFL training and earned the RSA Diploma.

Teacher Development

Regarding staff-development (college-financed), Centre One teachers agreed with Mark: “there was extensive training… weekly inputs… I couldn’t have asked for a better quality.” For self-development (self-financed), most teachers made decisions similar to
those of Mary who obtained a Master’s degree in TESOL, or Leslie who “is currently studying for a Master’s degree.” In Centre Two, Terry pointed out, “we’ve got staff-development sessions that we follow on specific topics... I’m involved in the dyslexia course now.” Shelly said, “we have a staff-development programme... it is interesting.” Shelly and Terry did not engage in formal self-development. For Centre Three, Ericka spoke for Rebecca and Nicole, “we have staff-development workshops.” Regarding self-development, Ericka received a Master’s degree in Applied Linguistics, Nicole is currently working on a Master’s degree, and Rebecca is studying to receive a Master’s degree in Education.

Curriculum Framework

In Centre One, Linda, Leslie, Mark, and Mary shared Carol’s opinion that the textbook was prescribed by their college: “on our timetable, it says course book.” However, they agreed with her that “the teachers also have freedom and are expected to supplement the course book.” But they “have to cover a certain amount,” explained Mary. They agreed with Linda that they taught a broad skills-based curriculum. In Centre Two, Shelly agreed with Terry, “I chose and introduced this textbook.” Terry worked in a context encouraging curriculum development: “We are encouraged to use other materials and to make our own materials as well.” Shelly noted, “I can do what I want. We’re fortunate really in our kind of work.” In regard to Centre Three, Ericka and Nicole agreed with Rebecca who explained the curriculum was decided upon “in our own way to suit the students.” She added, “we decide what we think the students need… our curriculum is very flexible… we decided… to do a skills-based curriculum.” Across the three centres, all students were ability-grouped. For example, Leslie taught intermediate students, while Linda taught advanced students. They also all taught mixed-nationality students.

Results

Data analysis focused on three sets of teachers who were interspersed throughout the study. They do not correspond to any particular college/centre. They will be named as

- Curriculum-transmitters: Terry and Mary.
- Curriculum-developers: Carol, Ericka, Leslie, Mark, and Linda.
- Curriculum-makers: Nicole, Shelly, and Rebecca.

The data will be presented through these four perspectives: teacher perspective (the general interview data); teacher perspective (pre/post observed lesson interview data); student perspective (the group interview data); and observed lessons perspective (the on-site data). The categories developed from the analysis are used to present the data in this order:

- Learning and content style
- Textbook needs
- Language needs
- Pragmatic needs
- Schematic needs
- Affective needs

Teacher’s Perspective: General Interview Data

Learning and Content Style

The teachers developed their curriculum due to factors relating directly to their students. Student content and learning styles led the curriculum-developers and curriculum-makers to pursue curriculum developments.

Learning and content style/curriculum-transmitters. Curriculum-transmitters did not attempt to develop their curriculum, as they claimed their students had predetermined-content styles. Content styles are the different ways students like to approach course materials (Shawer, 2003). Terry said, “They like to learn according to assigned materials, such as textbooks. This is the way this class works… probably it’s because of the way they themselves like to learn the language.” Content style concerns the personal preference of tackling a whole track of instructional content. It is not a cognitive style which is a psychological make-up that makes individuals prefer to tackle particular tasks and in particular ways, in wholes or parts, or in mental images or words. It is not a cognitive strategy which is the processes learners use to tackle tasks incompatible with their learning style (Riding & Rayner, 1998). Precisely, cognitive or learning strategies are the “steps or mental operations used in learning or problem-solving that require direct analysis, transformation, or synthesis of learning materials in order to store, retrieve, and use knowledge” (Wenden, 1986, p. 10). Content-styles also differ from meta-cognitive strategies that constitute the “general skills through which learners manage, direct, regulate, guide their learning, i.e. planning, monitoring and evaluating” (Wenden, 1998, p. 519). However, content and cognitive styles share the aspect that both are habitual and relatively fixed (Klein, 2003; Riding & Rayner, 1998).

Learning and content style/curriculum-developers. Curriculum-developers, for example, developed curriculum to address student learning styles, including analytic, visual, aural, tactile, and field in/dependent.
Ericka indicated, “I have to take notice of different learning styles.” She responded to learning-style variation, “I always try to include a variety of different activities on maybe some grammar, some work at skills, some vocabulary and also different types of exercises, a written exercise or a speaking sort of activity.” Some of her students were field-dependent, preferring to interact with others when processing information. Other students were field-independent, who could separate important details from a complex context on their own (Meehan, 2006). Ericka asserted, “I realize some people prefer to work alone and some people prefer to work in pairs and some people prefer to work in a bigger group.”

Carol also responded to field-independent students. “When I began working… with only Japanese students, they didn’t want to work together, so I had to re-focus how I did that.” She developed her curriculum because she said, “each class is different, each student is different, so one course book might work well for… the group it was piloted on and may not be appropriate for other groups.” She identified the problem: “Textbooks don’t really appeal to anyone, because they are trying to appeal to too many learners at one time.” The teachers also developed their curriculum to address analytic style students, who preferred to learn grammar and analyze sentences into their component parts (Shawer, 2006a; Tomlinson, 1998). Mark indicated, “Some students are like grammar freaks.” Carol agreed, “Some learners like to see how grammar works.”

Curriculum-developers also paid attention to student content styles. For instance, some students in Mark’s class did not like to learn through predetermined content (unpredictable content style). He explained, “Where possible I don’t use it [textbook], because students do not like it… The book is not tolerated. I could do it for one lesson and I’d get away with it. For a second lesson, the students would complain.” Other students had combined-content styles, students like to learn both according to assigned materials and also like to learn from non-assigned materials (Shawer, 2003). Mark responded, “Some like a mixture because they also like to feel there is a structure to the course.” Carol added, “because… students would just see what is coming next.”

Learning and content style/curriculum-maker. Curriculum-makers developed their courses to cater to different learning styles. For instance, Shelly noticed that some students were “tactile” or “kinaesthetic”: “The students like holding and moving things around.” She created her curriculum because her students do not like to learn through predetermined or combined content styles. They had unpredictable content style, as they agreed, “we do not want course books anymore. We want everyday topics.”

Textbook Needs

The teachers also approached curriculum differently to address student textbook, language, pragmatic, schematic and affective needs. Textbook needs included using textbooks for home “reference”, “reassuring”, “security”, “feedback” and for “exam preparation.”

Textbook use/curriculum-transmitters. Terry agreed with Mary who used her textbook because “If you never use it, they don’t feel secure.” Terry added, “the textbook reassures and guides them.”

Textbook use/curriculum-developers. Even curriculum-developers agreed that students need a textbook. Leslie still used the textbook because “they need the structure that the course book gives them.”

Textbook use/curriculum-makers. Rebecca, who was a curriculum-maker, agreed with the other teachers and conceded that once in a while she used the textbook. She said, “with the lower levels… it [textbook] gives a certain structure and guidance.” But she went on to say, “No textbook is written for one particular class. It’s written for a general vague level, which is different according to different classes… At the end of the day, it won’t necessarily meet the needs of all the students.” Shelly declared, “I don’t use textbooks, because there isn’t one that would be suitable.” She added, “a lot of textbooks that are available are written on themes totally alien to them.”

There has been controversy over textbook use which reflects the different views in this study. One research perspective stresses the various benefits of school textbooks to the extent that textbooks embody and define the school curriculum (Cody, 1990; Elliot, 1990; Foshay, 1990; Shawer, 2003; Talmage, 1972; Tulley & Farr, 1990; Venezky, 1992; Westbury, 1990). Textbooks determine the topics of teaching, their sequence and the time that should be allocated to each topic (Freeman & Porter, 1989). Westbury (1990) acknowledged the key role of textbooks in schooling: “It is a truism that textbooks are the central tools and the central objects of attention in all modern forms of schooling” (p. 1). Their significance is pervasive to the extent that “educational development and curriculum development... go hand in hand with textbook development and distribution” (p. 1). Woodward and Elliott (1990a) also argued that textbooks represent “national curricula in the basic subjects of the curriculum” (p. 146).

From a different perspective, researchers found textbooks problematic and insufficient to stimulate students’ genuine cognitive development or motivation. They are accused of restricting and stifling teachers’ thinking and creativity (Bell, 1993; Bell & Gower, 1998; Bhola, 1999; Hawke & Davis, 1990; Shawer, 2003; Squire & Morgan, 1990; Young, 1990).
Researchers criticize textbooks for being inflexible in meeting students’ needs or differences. Moreover, they are viewed as substitutes for teachers (Elliot, 1990). Therefore, textbooks create educational and instructional problems (Carus, 1990), since most textbooks lack materials to develop higher order skills of cognitive functioning and many significant topics (Woodward & Elliott, 1990a); they lockstep classroom teaching (Maley, 1990).

For these reasons, teachers need to adapt textbooks and use them as only one of many sources of input (O’Neill, 1990). They need supplementing because “nationally marketed texts cannot anticipate all the contingencies of local use... [and] cannot fully provide for individual differences or capitalise on opportunities in a particular locality” (Woodward & Elliott, 1990b, p. 183). The corollary of reliance on textbooks is that “students are short-changed in learning about important topics and teachers tend to become followers, not initiators of learning plans and strategies” (Elliott & Woodward, 1990, p. 224). Instead of depending on textbooks, teachers should construct learning situations which capture students’ interests and engage them in genuine interaction and intellectual processes (Carter, Hughes & McCarthy, 1998; Jolly & Bolitho, 1998; Keiny, 1999; Sheldon, 1988).

Language Needs

Student language needs formed an axis around which many teachers developed their curriculum. This involved teachers’ supplementing inadequate content through reading, writing, speaking, listening, and learning strategies. At this point, the curriculum-transmitters, developers and makers diverged into two different routes. Curriculum-transmitters addressed student textbook needs and this was the end of their road to curriculum.

Language needs/curriculum-transmitters. Regarding the issue of language development, even Mary, a curriculum-transmitter, acknowledged her textbook lacked appropriate and sufficient language elements, like writing. She purported, “Textbooks... don’t show students enough about the process of writing. For example, they just say write an essay, give the product. They don’t say how an essay is written... I don’t think they’re good quality. Writing is ignored.” Again, Mary admitted her textbook lacked enough listening strategies, another language need.

Language needs/curriculum-developers. Curriculum-developers took an entirely different approach. They supplemented inadequate curriculum content to address student language needs in terms of writing, speaking, fluency, and accuracy. Curriculum-developers supported Leslie’s statements that “some textbooks provide adequate writing practice, some don’t. Some provide adequate speaking practice, some don’t.” According to Ericka, the curriculum lacked two basic language needs: reading and listening. She developed her course through supplementing topics and adapting existing topics and materials, “One reason for not adhering to the course book was that this book is not very good on reading and listening skills... so it needs a lot of supplementation.” Mark also developed his curriculum, because “books don’t really have us do much writing.” Carol acted to supplement the speaking element, “I have a class that finds speaking difficult, so I have to supplement that.” Linda noticed her students lacked accuracy: “They need to do quite basic grammar work, so I have to respond.” Mark supplemented as the textbook listening input was partly inadequate: “The students specifically asked for more listening, so we’ve done lessons”; and partly because they were poor at this area “they were clearly finding listening difficult... so we’ve done things like video, which are great really.”

Language needs/curriculum-makers. Nicole acted to address students’ fluency need: “the class that you’ve observed... needed a lot of fluency.” Nicole added, “The textbook... doesn’t cover the topics that they’re interested in.” She did not use it “because the textbook isn’t sufficient... the suggested tasks are quite limited.”

Pragmatic Needs

The curriculum-developers and makers also developed their curriculum to cater to the students’ pragmatic needs. These included vocational, academic, exam, and relevance needs.

Pragmatic needs/curriculum-transmitters. Since Terry and Mary followed the textbook to the letter, they did not adapt the content to fit their students’ pragmatic needs. They just adopted a policy of textbook transmitting. “I just follow the course book,” said Mary with whom Terry agreed.

Pragmatic needs/curriculum-developers. Ericka added topics because the curriculum ignored “vocational” needs, while some students “are looking for a job and English is very important for that job.” Nor did it address student “academic” needs, as she explained further, “Some of them... are coming over here to do courses at universities, then of course, the reading and writing are very important to them.” In addition, Leslie supplemented and adapted “to cover all
the exam techniques.” Linda supplemented her topics, so that the students could “see that what they’re learning in class is actually relevant to what they’re doing outside the class.” She named “one of the factors [for] moving away from the course book… is… relevance.” Carol further explained, “If you are doing something just because it’s… in the textbook… that has no bearing on their lives… it has no meaning.” In addition, Ericka adapted her course content because “the course does not exactly match the level of the students… their reasons for studying might be different than the reasons envisaged by the writer.”

Pragmatic needs/curriculum-makers. Nicole and Shelly shared Rebecca’s opinion who developed her curriculum “because… it’s pointless giving students meaningless phrases or structures to practice, because they won’t remember… it’s harder to take that language outside of the classroom.” By addressing students’ pragmatic needs, curriculum-developers and makers are responding to one of a curriculum’s main criteria, which is relevance (Clandinin & Connelly, 1998; Eisner, 1990; Hytten, 2000). Pollard and Triggs (1997) asserted that students’ truancy and disruptive behavior are signs that a curriculum does not address the relevance criterion. Dewey (1916) stressed this pragmatic aspect of education: “We do something to the thing and then it does something to us in return” (p. 163).

Schematic Needs

Schematic needs were another driving force behind teachers’ curriculum developments. This required teachers to fill in the gaps of the student’s missing knowledge, to build on student prior knowledge, and to achieve content relevance in terms of difficulty, adequacy, and substantiality.

Schematic needs/curriculum-transmitters. Mary and Terry were very concentrated on following the pattern of the textbook and the teacher’s guide. Consequently, they did not supply the students with extra materials, topics, or pedagogic strategies for building students’ schemas or at least adapting available content to their cognitive structure. Terry made his stance clear: “I have enough time to cover the whole book.” So did Mary: “I most often do the book.”

Schematic needs/curriculum-developers. Curriculum-developers filled in students’ missing knowledge through supplementing and adapting (Bruner, 1978; Gipps & MacGilchrist, 1999). Linda pointed out, “They hadn’t actually been exposed to that grammar before, so I had to adapt a lot of it. I had to introduce the concepts, before we went on. I felt what the book was trying to introduce was not appropriate.” The curriculum did not match her students’ cognitive structures: “The grammar in that course book, again was assuming a very high level of understanding of basic grammar, which a lot of them didn’t have.” Leslie also recognized that her students were missing prior knowledge and said there were “many individuals who… needed to do quite basic grammar work.” When the textbook addressed structures which her students knew, she built upon them: “They know this grammar. Now, they need to practice it in a speaking situation.”

Linda built on students’ prior knowledge: “I’ll introduce them to the phonemic chart, if they don’t know it and having done that, I build upon that.” Linda also developed her curriculum because “some of the materials, some of the skills are… too difficult and not appropriate.” Carol overlooked the phonetic alphabet because “they are aware of these symbols.” She provided what was missing and built on existing schema, which reflects the basic constructivist teaching/learning principles (Piaget, 1955; Pollard, 1987, 1997; Vygotsky, 1978). “I see which areas they are getting and which terms, grammatical structures and vocabulary they obviously need at that point.” Her principle was “if you did it that way [content coverage], you’re not really responding to their needs.”

Schematic needs/curriculum-makers. As curriculum-developers did, curriculum-makers addressed several issues around students’ schematic needs. Rebecca built on her students’ prior knowledge and bridged the gaps in their schemas saying, “I might not do the same kind of input. I might have to change my lesson plan, because the students might know a lot more than I anticipated, or a lot less.” So did Shelly: “They have already gone through grammar in a certain degree.” Shelly developed her curriculum “to give individual attention and to focus on individual students’ needs.” Rebecca explained, “At the moment, the class you’ve been observing, we started off with the textbook being too difficult, and that’s why I did a lot of my own materials.”

In line with Siraj-Blatchford (1999), curriculum-developers and curriculum-makers addressed issues of social interaction, conscious construction of knowledge, and student motivation by “organising materials/resources, providing relevant/interesting and novel experiences, providing opportunities for active exploration…scaffolding [through] directing attention to a new aspect of a situation [and] helping the child to sequence activities” (p. 40).

Affective Needs

Students’ affective needs constituted another driving force behind teachers’ curriculum developments. These involved addressing student motivation, interests and updating content.

Affective needs/curriculum-transmitters. Since Terry and Mary adhered strictly to the text and teacher
guidelines, it appeared that they were not interested in doing anything special that would motivate the students to learn. They either felt that the students enjoyed the structure of the textbook, or they may have been unaware of the affective part in their students. Mary was quite frank: “It is not fantastic, but it’s ok, I guess.” To the contrary, Terry was convinced: “The students seem to be quite happy [about sticking to the textbook].” Terry and Mary tended to follow what Richardson (1997) terms the transmissional model of teaching. They just delivered information to passive learners. They also reflect aspects of classical humanism (Kelly, 1999; Skilbeck, 1982) since they were focused on transmitting information and exams. All that they did was linear and predetermined. For them, curriculum knowledge was as if it is timeless, objective, and independent of a particular society or learners. Richardson (1997) maintained that “this transmission model promotes neither the interaction between prior and new knowledge nor the conversations that are necessary for internalisation and deep understanding” (p. 3).

Affective needs/curriculum-developers. Contrary to curriculum-transmitters, curriculum-developers were interactive and constructivist teachers. In addition to fitting curriculum to students’ learning zones (Vygotsky, 1978; Wells, 1999), they also considered motivation the key to effective learning (Gross, 1996; Wetton, 1998). Leslie supplemented and adapted partly because “using a textbook solely would be too monotonous… I need to supplement it.” Linda agreed, “The students find it boring, so I reject it on the basis of that. Although the level might be fine, motivation is a factor… why I move away from the course book.” Carol addressed student interests. “They have to have a real interest… that’s the key thing… If they are not interested, they won’t have any need to understand it.” So did Mark: “I work from things that would interest them.”

Affective needs/curriculum-makers. In the case of following the textbook, Nicole indicated, “The students would suffer from that and wouldn’t be as engaged. They also wouldn’t really get the topics that they are interested in.” Shelly provided her topics “of course to motivate the students.” She went on, explaining, “It’s more about identifying an area of interest… I’m not going to do something on fashion, if I know they’re not interested in fashion.”

Teacher’s Perspective: Pre/Post Observed Lesson Interview Data

Apart from curriculum-transmitters, the teachers developed curriculum to address student “learning” and “content” styles. For curriculum-developers, Mark tended not to use the textbook because his students had unpredictable content styles: “To be honest… it’s not good for them.” As for curriculum-makers, Shelly prepared the topics and materials because some of her students had field-dependent styles: “As you can see, some are very needy, particularly the lady here. She likes me to sit down with her. She is not very autonomous at all.” Some others were field-independent: “Kate works very well, if she feels supported. Barbara is very capable.”

In order to identify the reasons behind teachers’ curriculum developments, I asked this question: “Did you depart from your lesson plan?” I followed it up with “Why?” Curriculum-transmitters always offered one reply “no.” Curriculum-developers often departed to adjust content to student schematic needs. Linda answered in the affirmative and explained, “I was aware that it would probably take quite a while to get through that reading text, because it was difficult.” Another lesson, “I didn’t get on to what I thought I might, because things came out earlier on, which I then wanted to explore.” Ericka answered, “Yeah, I did because I was going to do another listening exercise… but I didn’t have time.” Of another lesson, “I did because… I expected them to be skilled at using those forms [future perfect]. In fact, they were a lot more hesitant than I expected.” Mark replied, “Yes, I added some stuff for the story, but we didn’t use any of them. It wasn’t really relevant.” As for curriculum-makers, Shelly answered, “I always depart from the lesson plan. I didn’t think it was going to take so long. What I’ve planned for the second half I didn’t do,” while Nicole stated, “I would have gone on listening, had there been time.”

To delve deeper into teachers’ minds, this question was asked: “Did you make any changes to the textbook content?” As appropriate, it was followed up with “What were the changes? Why?” Again, curriculum-transmitters often answered in the negative. Terry always said “no,” apart from adding, “I brought my own ideas.” Mary offered one answer: “I followed the textbook.” As for curriculum-developers, Linda made changes to address schematic needs: “I used the textbook and developed from it… I missed things out, because I didn’t think they might be appropriate.” Ericka changed as their prior knowledge mismatched textbook contents: “There was an exercise using the present perfect… We haven’t done that yet, because that’s quite a big grammar topic and I want to do it later.” On another occasion, Ericka supplemented to cater for language needs (listening): “They need as much listening as possible.” Regarding curriculum-makers, Rebecca replied, “The whole point of doing these changes was to suit that particular class… so that’s why I gave them the other handout.”

To identify further reasons behind teachers’ curriculum developments, they were asked, “How did
you respond to your students’ individual differences and different needs?” Curriculum-transmitters offered different replies. In one lesson, Mary ignored students’ needs, but responded to their differences through immediate-feedback questions. “I suppose, so-so. If they made a mistake, I corrected individuals.” In another lesson, she again ignored their needs, but addressed their differences, using deferred-feedback of summated corrections: “In the final exercise, I listened and I took some notes and gave corrected feedback.” In only one lesson, she supplemented to address student language needs (listening): “The students in the tutorial asked for extra listening, so we did a listening on a topic of music, which was quite interesting for them.” Terry said, “I have, as you will have noticed, a policy of going round the class and making sure that everybody in turn answered the questions” and “I did try to take longer with students who were not as quick as the others.”

When asked how they responded to student needs and differences, curriculum-developers offered similar statements. Linda considered student pragmatic needs, particularly issues of relevance: “I had the students in mind, when I chose the materials.” Ericka responded to students’ differences using immediate feedback: “I was always available going round to help.” In another, she skipped the content that mismatched students’ schema: “Forms like ‘future continuous‘ and ‘future perfect’… are rather difficult for them, I decided… to leave them out completely.” In a third, Ericka compensated for content inadequacy “because the students needed more support on vocabulary… so the course needed supplementing in this area.” Leslie responded to student schematic needs (content adaptation) and affective needs (motivation): “I select materials, which will effectively allow them to acquire the language that they need to practise. I vary the content of the lesson, so that things remained interesting.” Mark also addressed their language needs: “They need… a lot of speaking. They also need writing… and they get a lot of that.” In another lesson, Mark acted to address their pragmatic needs: “It’s not good for them… so today is good I planned other materials and something proper for them.” Carol addressed their textbook and pragmatic needs: “It’s not good for them… a lot of speaking. They also need writing… and they get a lot of that.” In another lesson, Mark acted to address their pragmatic needs: “It’s not good for them… so today is good I planned other materials and something proper for them.” Carol addressed their textbook and pragmatic needs: “The textbook exercise was to provide them with the techniques they needed… in the exam.” In another, she used immediate feedback: “I had to respond to individual students’ needs through the questions they had.”

When asked how they responded to student needs and differences, curriculum-makers provided replies similar to those of curriculum-developers. Nicole responded to students’ differences through immediate feedback: “By going around the class and checking their understanding” and “when there was an individual query, I tried to address that.” In another, she addressed their affective needs. She supplied a topic about “money and the lottery, which is one of the topics the students are interested in.” She did not use the textbook, as “it doesn’t cover the themes they’re interested in.” Rebecca modified content to suit student schemas: “Definitely in planning the lesson [I respond to student needs], because that’s why the pace was quite slow.” Another lesson, she gave the “opportunity for the good ones to move on at their own pace and the slow ones to just do exactly as they were asked.” In a third, Rebecca supplemented to address their pragmatic needs: “Because they see it real-life outside. They needed to know the signs.” Shelly’s preparation was “to plan short visits for a chosen country and present travel arrangements and time scale orally.” She was asked, “Why did you prepare this particular lesson?” She wanted to address students’ pragmatic needs: “It’s related, because this is about local things that they can do for themselves. Some of them will be making arrangements to go home. So what a travel agent is, what they can do for them.”

Student’s Perspective: Group Interview Data

Learning and Content Style

The students revealed that they had different learning and content styles. This matched teacher interview statements that such differences in style drove their teachers to develop their individual curricula. The students in all three groups were mostly of a field-dependent learning style. From the curriculum-developers’ group, Linda’s students shared the opinion that “If you study by yourself, then how can you speak in the class? So, it’s necessary to speak and to hear the same language from other students.” Mark’s students agreed: “Working with other students makes us have deeper understanding.”

The students ranged across unpredictable-content, predetermined-content, and combined-content styles. Many students had unpredictable-content styles. Carol’s students agreed: “I am not suited to the textbook, nor the textbook suits me.” So did Mark’s students: “I like to have a surprise in learning everyday. If I can prepare the lesson before he teaches it, I think it’s not interesting anymore.” Even with curriculum-transmitters, most students had unpredictable content style. Mary’s students agreed, “We don’t like being taught through a textbook.” The curriculum-makers’ students were no different. Nicole’s students noted, “We don’t like to use the textbook anymore… now is a time to face the real life… more background knowledge. That’s what we want to learn.”

Though many students had unpredictable content styles, the majority had combined-content styles. Regarding the curriculum-developers’ group, Carol’s...
students preferred combining other sources with the textbook. One stated, “Other materials can be more interesting than the textbook, but I like both.” Even the curriculum-transmitters’ group had the same style. Mary’s students also “liked both of them.” Only one of Terry’s students had a predetermined-content style: “I like the teacher to follow the textbook.” The curriculum-makers’ students shared this statement from Rebecca’s class: “I like both of them, I think all of us like both.”

Language Needs

Apart from curriculum-transmitters, the students generally believed their teachers addressed their language needs. From curriculum-developers, Linda’s students agreed, “The teacher improves our listening, but in other topics- economics or politics- so relying on the course book is not enough.” Students from the curriculum-transmitter group stated otherwise. Mary’s students indicated that she ignored their language needs by adhering to the textbook. One was alarmed: “Reading is not a problem to me. Just... listening, but we practice very little listening.” Another complained, “We must have more opportunity to practice listening and speaking.” As for curriculum-makers, Nicole’s students needed to practice more speaking, but they said, “We had lots of speaking activities.”

All the students noted that textbooks were inadequate to address their language needs. But students of curriculum-developers and curriculum-makers noted that their teachers provided the missing elements. Ericka’s students praised her supplementations because “This book is basic in reading. I need more and different readings, for example, magazines” (curriculum-developers’ group). Nicole’s students also noted, “If you study in a grammar book and cover the book, you can’t use English properly.” One added, “You can’t include everything just in one book. Learning is just from all of life” (curriculum-makers’ group).

Schematic Needs

Again, apart from curriculum-transmitters, the students indicated that their teachers used various sources to address their schematic needs. Leslie’s students indicated that she departed from the textbook to tailor its contents to their schemata: “Our textbook is intermediate. Every student’s skills [are] higher than intermediate, so we needed this more difficult knowledge.” Carol’s students said, “She gave us more materials just to make the textbook more substantial, because the materials in the textbook are not enough for us” (curriculum-developers’ group). Nicole’s students agreed that she did not use a textbook “because it’s so easy for us” (curriculum-makers’ group).

Pragmatic Needs

Apart from curriculum-transmitters, the students noted their teachers tried to develop the course to meet their pragmatic needs. Only the curriculum-developers and makers’ students noted that their teachers responded to their vocational needs. Linda’s students shared this opinion: “I’m learning English to get a good job. She has taught me something that I wanted.” Ericka’s students thanked her for addressing their academic needs: “I need all of them [listening, speaking, reading and writing] because I will take a Master’s course.” Carol’s students agreed that she addressed their communicative and exam needs: “She teaches us how to use English. We also learn about exams” (curriculum-developers’ group). Nicole’s students agreed: “The aim... why we study here... is to use English. We use video films, TV programmes, and newspapers a lot. I like it because it’s more related to reality, to our real life” (curriculum-makers’ group).

Affective Needs

Yet again, apart from curriculum-transmitters, the students indicated that their teachers addressed their affective needs through addressing their motivation, interests, and updating content. Carol’s class agreed, “She chose some very interesting topics.” Mark’s students stated that he supplemented topics to update content. One agreed and commented, “Everyday new things happen. If only we learn from the textbook, we won’t get the new information he brings” (curriculum-developers’ group). Nicole’s students said that she provided what they were interested in because “The most important thing is the interesting topics, otherwise we don’t want to learn.” Rebecca’s students also agreed: “It’s old. We don’t like textbooks but Rebecca [is] wonderful” (curriculum-makers’ group).

Observed Lessons: On-Site Data

Through matching teacher and student statements and comparing them to observational data, this clarified certain aspects. Curriculum-developers and curriculum-makers were student-directed. They responded to student characteristics, as they skipped and adapted textbook parts and supplemented topics and materials. For example, Carol prepared a lesson about reading skills, like working out meaning from context because, as she also stated, her students were dictionary addicts. She wanted them to improve reading comprehension. Therefore, Carol wanted unconventional text to drive her students to work out meaning. The text included
words, like “bar” meaning “except,” which they would not know, unless they could hear it in context. Leslie’s students asked to learn about slang language, including the use of idioms and expressions. For example, she did lessons on slang language like this: “The fat that rolls around someone’s waist is called a ‘spare tire’.”

Apart from curriculum-transmitters, the teachers took the roles of facilitators, guides, and resource personnel. For example, Nicole asked her students to watch a video film. She joined each group for few minutes to facilitate discussions about the parts they watched and provided help regarding vocabulary. Rebecca’s students discussed their chosen reading texts about which they had to write a summary. At the same time, Rebecca was monitoring them and participating in each group to help those who had difficulties coping with the task. Apart from curriculum transmitters, the teachers also considered student differences in their lesson plans. Carol, for example, asked each student to write a story report, immediately after reading. She handled differences by giving the students who finished early, a separate task of writing sentences using relative pronouns. For those who had trouble finishing their work, she gave them more time to complete the job at hand.

Discussion and Conclusions

This study explored student-directed factors which lead to different teacher curriculum approaches and the possible connection between these motives and the curriculum-transmitter, curriculum-developer, and curriculum-maker’s taught curriculum. In answering the first research question, the study identified several student-related factors leading teachers to transmit, develop, or make curriculum. Teachers equally developed or made curriculum to address student language, pragmatic, schematic, and affective needs. Teachers acted to address students’ language needs whether accuracy, fluency, listening, reading, writing, or speaking. They developed or made curriculum to respond to students’ pragmatic needs, whether academic, vocational, or communicational. Teachers developed or made curriculum to meet student schematic needs by tailoring content and activities to match student schemas and building on their prior knowledge. The teachers equally developed or made curriculum to address student affective needs in terms of motivation, interests, and content updating. They developed or made curriculum to cater to students’ different learning styles. They developed or made curriculum to address student content-styles, whether predetermined, combined, or unpredictable. These conclusions, for example, concur in part with those of (Beck & Kosnik, 2001; Clemente et al., 2000; Eldridge, 1998; Gudmundsdottir, 1990; Heaton, 1993; Lee, 1995; Remillard, 1999; Shawer, 2003, 2006; Woods, 1991).

These findings clearly put this study’s teachers on Snyder et al.’s (1992) continuum, where curriculum-developers closely approached their curriculum in the same way as the mutual-adaptation approach. Curriculum-makers also approached their curriculum in similar ways to the enactment approach that concurs with Cochran-Smith and Lytle (1999) who believed teachers no longer need external knowledge and criticize “prevailing concepts of teacher as technician, consumer, receiver, transmitter, and implementer of other people’s knowledge” (p. 16). Concerning curriculum-transmitters, they did not even live up to the fidelity approach implementation or delivery agenda. Indeed, curriculum-developers and makers perceived the dissonance and clash between the prescribed curriculum guidelines and their practical and professional knowledge. They took the risk of developing and making curriculum to address their contexts in similar ways to Craig’s (2006) conclusions from her narrative study; since curriculum-developers and makers “filter[ed] their curriculum… [where] what… they say and do inform[ed] their curriculum making and reveal[ed] their personal practical knowledge in action” (p. 261).

In answering the second research question, the study concluded that there were positive relationships between the teacher curriculum-developer and teacher curriculum-maker approaches and these learner-related factors. This means that a teacher who takes the above learner-related factors into consideration will either develop or make their own curriculum. By contrast, a negative relationship was established between the teacher curriculum-transmitter approach and the above factors. This means that the teachers who do not respond to student needs, interests, and differences do not develop curriculum and only transmit prescribed materials. These conclusions also concur with the view that constructivist teaching and learning (achieved by this study’s curriculum-developers and makers) has positive outcomes while transmissional pedagogy does not (Bruner, 1978; Craig, 2006; Parker, 1997; Piaget, 1955; Pollard, 1987; Richardson, 1997; Schön, 1983; Shawer, 2003; Terwel, 2005; Vygotsky, 1978; Wells, 1999).

Though curriculum-developers and makers seemed to develop and make curriculum for “student-related” reasons, “teacher-related” factors might have been working behind the scene, which future researchers might wish to investigate. Therefore, teachers’ teaching and content styles might be factors behind curriculum development. Curriculum-developers seemed to be learner-directed as they responded to their students’ needs; and were more facilitators, organizers and guides than teachers. They might have also developed
curriculum because they seemed to have occasional improvising styles, give up some lesson plans at times, and change planned teaching techniques at others. However, it might be because they seemed to have combined-content styles, where they used the curriculum materials, topics, and pedagogic strategies concurrently with theirs.

Eventually, it seems unclear why curriculum-makers adopted to make rather than develop curriculum, though they were very much like curriculum-developers in most respects, including experience, training, and staff-development. This, indeed, might intrigue researchers to study this difference. The only available interpretation is that curriculum-makers seemed to have unpredictable-content and improvising-teaching styles, since they did not use textbooks at all, nor did they follow the teacher’s guide instructions.

Curriculum-transmitters might have just delivered materials because curriculum delivery might have been easier and safer for them. The interesting but also intriguing thing about curriculum-transmitters is that, although they had similar education, experience, staff, and self-development, they did not try to address their students’ needs. This might be due to their teacher-centered teaching styles. Or might it be because they had textbook content-styles?

It seemed that curriculum-developers and makers developed their curriculum because they were well trained. This concurs with previous research conclusions that teachers cannot achieve curriculum developments without abundant subject-knowledge and pedagogic and curriculum skills (Clemente et al., 2000; Hansen, 1998; John, 2002; Shawer, 2006a; Spillane, 1999). However, teacher education had no bearing on curriculum-transmitters. One explanation could be their training was ineffective. Researchers might study training effectiveness on teachers’ curriculum development. Curriculum-developers and makers might have also developed their curriculum because they were experienced, which is a conclusion supported by previous research where it indicated that novice rather than experienced teachers adhere to textbooks (Beck & Kosnik, 2001; Clemente et al., 2000; Doyle & Carter, 2003; Kirk & MacDonald, 2001). Yet again, curriculum-transmitters were experienced but never made curriculum developments. This suggests that though experience is pivotal, it is insufficient. Future researchers may study why experienced teachers just transmit curriculum materials.

Staff and self-development could have influenced curriculum developers and makers to improve curriculum that concurs with conclusions derived from Remillard’s (1999) study. Once more, curriculum-transmitters were almost at the same levels of staff and self-development, but achieved quite different curricula. Management policy in terms of the degree of freedom curriculum developers and makers enjoyed could have driven them to develop curriculum, which previous research also supports (Benavot & Resh, 2003; Craig, 2001; Eisner, 2000; Gess-Newsome & Lederman, 1995). However, this was not the case with curriculum-transmitters (particularly Terry) who enjoyed a great deal of freedom to tackle curriculum but never made an effort to improve it.

Therefore, we had teachers (for example, Leslie and Mark) who were monitored to just transmit curriculum, but they chose to develop curriculum. In contrast, those who had freedom to develop or even make curriculum (for example, Terry) just transmitted textbook content. This might go back to teachers’ beliefs, which researchers might wish to examine. All these contradictions about the differences between these teachers, definitely call for a study about teacher-directed motives behind their different curriculum approaches.

We should finally point out that the EFL context does not exclusively make curriculum development learner-driven. Rather, we cautiously believe that learner-driven motives could lead teachers to develop curriculum in similar ways in other similar contexts because case studies lead to theoretical rather than statistical generalisation, in which the reader can generalise the techniques and issues to their own contexts (Yin, 1994). Of course, future researchers may study the impact of learner-driven motives on curriculum development in other contexts. We chose to study these motives in relation to the EFL context because it is our area of specialisation. We do not claim any correlation between the EFL context and curriculum development because we did not intend to assess the impact of the EFL context on the curriculum development process.

Implications for Future Practice/Research

In addition to the aforementioned-recommendations, the results of this study support that initial teacher-education institutions should equip teachers with curriculum development skills at the classroom level in addition to subject, pedagogic and deep curriculum content knowledge. Policy-makers should adopt broad curriculum development approaches that provide core skills and concepts that teachers address in their own ways and resources. This would drive teachers to plan and develop their own courses. Future researchers may wish to investigate the impact of the different curriculum approaches (curriculum-transmitter/curriculum-developer/curriculum-maker) on the following: teachers’ professional development (cognitive); teachers’ job satisfaction (affective); students’ learning (cognitive
development); and students’ motivation (affective development).

References


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Appendix A

Interview main and follow-up questions with teachers:

NB. Only the main questions were asked. The follow-up questions were not asked as long as the respondents mentioned them in their conversation. The interview was open-ended and the follow-up questions were extended from one interview to another through probing the issues the respondents raised.

How do you approach your Language curriculum?

- Do you adhere to the textbook scope, sequence, pages and lessons?
- Do you skip parts of the textbook? Do you supplement other materials?
- Do you adapt or change parts in the textbook you use?
- Do you substitute the textbook topics with your own topics?
- Do you follow the curriculum objectives, adapt or change them?
- Do you follow the time allocated to topics and lessons in the teacher’s guide?
- Do you use the pedagogic strategies and instructions in the teacher’s guide?

Why do you approach the course in the way you do?

- students
- course nature
- college policy

Appendix B

Pre- and post-observation interviews with teachers:

N.B. This type of interviews had to be direct, which might seem to be leading. They had to be so, in order to drive teachers to supply answers about certain observed actions.

Interviews before Observations

- What did you plan to teach for today’s lesson?
- Why did you prepare it?

Interviews after Observations

- Did you depart from your lesson plan? Why?
- Did you make changes in the textbook content? What were the changes? Why did you make them?
- How did you respond to your students’ different needs and differences in today’s lesson?
- Which parts of the lesson do you think were successful? Which parts were unsuccessful? Why do you think so?
- What teaching/learning strategies and techniques did you use?
- Did you follow the pedagogic strategies and instructions in the teacher’s guide? Why/ not?
Appendix C

Interview main and follow-up questions with students:

- How does your teacher approach/ teach your course?
- Why do you think your teacher teaches this way?
- How does your teacher use the textbook?
- Does the teacher adhere to the textbook sequence, pages and lessons?
- Does the teacher skip parts of the textbook? Does s/he supplement other materials or lessons?
- Does the teacher make changes in the textbook exercises? Lessons?
- Why do you think your teacher uses it this way?
- Which kind of material do you like your teacher to use? Does s/he already use them? Why do you think s/he uses them rather than others?
- Do you think your teacher has responded to your needs/differences? Why do you think so?
- What kind of teaching activities does your teacher use in your classroom? Are you happy with them? Why?
- Do you think that your classroom teaching/ learning is effective? Why?
The Positive Role of Negative Emotions: Fear, Anxiety, Conflict and Resistance as Productive Experiences in Academic Study and in the Emergence of Learner Autonomy

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Although affect is widely recognized as a powerful force in determining students’ academic success, researchers and practitioners have paid little attention to emotional barriers that often impede college success or how instructors may respond constructively when such barriers arise. The purpose of this paper is to initiate discussion of this important problem by offering a model of how an initially resistant, fearful, and/or anxious student can use emotionally unpleasant experiences to transform himself or herself into a more autonomous and successful learner. We offer prima facie support for this model by presenting the results of two cases of first year students. Although this model may not apply to all anxious first year students, it nevertheless has value (a) as a resource for instructors working with students who fit this pattern and (b) as an example of how the role of emotions in learning can profitably be studied.

Although affect is widely recognized as a powerful force in determining students’ academic success (e.g. Bar-On & Parker, 2000; Gray, 2001, 2004; Gray & Braver, 2002), researchers and practitioners have paid little attention to emotional barriers that often impede college success or how instructors may respond constructively when such barriers arise. The purpose of this paper is to initiate discussion of this important problem through an analysis of the experiences of two students who overcame resistance as well as almost all fear and anxiety to emerge as successful and autonomous learners. Through an analysis of these two cases, we will present a case that emotions such as conflict and anxiety can positively influence learning contrary to what many instructors initially suspect.

The study was conducted in a Critical Thinking and Writing course offered through a blended learning model; a blended learning model is one that combines online and face-to-face sessions. The research was conducted in a first-year seminar at a small urban college that primarily serves economically disadvantaged adult students, many of whom are affected by what VanDijk and Hacker (2003) call “the digital divide.” It, therefore, is unsurprising that many students in this course were fearful and resistant to the Internet as an educational medium. The advantages of conducting research via an online course are (a) the substantial body of relevant research and scholarship into cognitive and affective factors that affect success in online learning (Benson, 1997; Boud, 1988; Candy, 1991; Dam, 1995, 2004; Kannan & Miller, 2005; Salmon, 2000) and (b) the availability of written records of peer-to-peer and peer-to-instructor exchanges for subsequent analysis.

The case studies concern two first-year students, one male and one female. Early in the course both students expressed anger and fear of computers in general and the Internet in particular, verbally and non-verbally. In our opinion, their experience has much to teach college instructors and support professionals who work with an at-risk population, such as the one in this study, as well as with other populations in which emotional obstacles may impede learning.

Case Study

The present case study involved observing the process of learning in students in a freshman course. The purpose of the research was (a) to investigate the learning process of students in transition who show emotional resistance and (b) to use this knowledge to assist instructors and other university personnel to help these students in meeting course learning outcomes and adjusting to the university experience.

Course Description

The major learning objective of the course was to hone students’ critical thinking skills in a learning environment that combined discussions in face-to-face and online sessions. Continuity in the learning process through the different learning environments was achieved by structuring the tasks so that the concepts of logical thinking (e.g., inductive and deductive reasoning, types of fallacies) that were introduced in the classroom were applied to open-ended debates on controversial topics (such as cloning and euthanasia) on electronic discussion boards.

Student Profile

The students in this study were all minority, working, adult, returning students, all of whom showed weakness in math, basic writing, and study skills and a
limited understanding of college level learning expectations. For these students, attaining success in the first semester was often a crucial factor in determining whether they would continue in their pursuit of a college degree (Hyer & Joslin, 1998; McKenzie & Schweitzer, 2001).

That this student population began with poor computer literacy skills helps clarify why many of the students experienced anxiety in the beginning. The 10 students (8 male, 2 female, average age 28) in the class had all returned to college after an average hiatus of 8 years. Every member of the group had limited prior experience with the computer and the Internet (coming from the disadvantaged side of the digital divide). None of them owned computers at home. Information search using the Internet was completely unknown to them. While they had heard of search engines such as Google, they had never used them before. One student had some computer experience (including access to a computer at work and some experience creating documents using a word processor and sending and receiving email.) Otherwise, even at work, none of them had used computers. They had no experience using a word processor to create documents or emailing to communicate professionally and personally. They got their first email accounts after joining the college. For all of the students, this was their first formal online learning experience. Thus this cohort was risking its potential for academic success by enrolling in a course built for a hybrid learning environment.

In this paper, we will report case analyses of two students in the course, whom we will identify as Marcia (the one student with some computer experience) and Simon. We use pseudonyms to protect participants’ privacy and confidentiality. Although they were anxious about online learning, both Marcia and Simon described themselves as confident and competent learners at the beginning of the course.

The Instructor

The instructor (co-author of this paper) was a full-time faculty member with eight years of teaching experience and a background in critical thinking and online learning. While recognizing her skill as a teacher, we believe that our results are typical of student learning in a competently taught college level course, not the result of unusual methods.

Data Collection

Data for the case studies were compiled over the course of the semester from a variety of sources:

1. Student assignments submitted in writing and oral presentations in class
2. Student assignments in the form of online postings and peer-learning tasks on the online discussion board
3. Record of verbal and email interactions between students and the instructor
4. Informal observations by the instructor of learner performance and learner behavior
5. Surveys administered through written questionnaires conducted at the beginning, middle, and end of the course
6. Self-reports from the students in post-course interviews

Case Study Data: Methodological Considerations

Case study research by its nature is formative and, therefore, cannot support strong generalizations on its own. Nevertheless, the close analysis of the individual case can reveal patterns of thought and behavior impossible to detect with summative methods. It is most useful and appropriate in seeking to describe phenomena and generate hypotheses that go beyond common sense. The role of affect in learning is a good example of when case study methods are appropriate. Even though most experts agree that affect must play an important role in learning and instructors are continually confronted by the kind of conflict and resistance documented here, researchers committed to summative methods have had almost no success either in explaining its role or in helping instructors cope more successfully. We believe that case studies such as the present one offer a productive alternative to summative methods that hold substantial promise of advancing our knowledge of this and other complex kinds of learning.

Results

Evidence of Affective Change

Over the 15-week period, Marcia and Simon showed signs of change in their emotional response to learning, especially when viewed in the light of their dislike for the online learning environment at the beginning of the course.

- During the first interaction with the instructor, which was a face-to-face session in class, Marcia and Simon showed resistance to the prospect of working online:
  - They expressed their unhappiness and anger verbally on being informed that a hybrid course was a combination of face-to-face and online components. ["I don’t want to be in this class.”]
Openly, they stated that they were uncomfortable with technology. ["I have never been in an online class before. I don’t know enough about technology."]

During the post course interview, they talked about their feelings of frustration and hopelessness they had experienced at the beginning of the course. Both Marcia and Simon were unanimous in attributing their frustration to a lack of familiarity with computer-based-learning.

In the self-report, they claimed that they showed resistance in the first session because they thought that inexperience with computers could lead to a poor academic performance and, thereby, a failing grade.

In week 2, Simon and Marcia attended a training session with the rest of the class in the computer lab. During this session, the instructor observed the following:

- Marcia showed anxiety by being fidgety on the keyboard.
- Marcia mentioned that the proximity of the instructor looking over her shoulder while she was posting a message online was making her nervous and she requested the instructor to keep away from her.
- Simon seemed calm outwardly, but in his hello message to the class he professed feeling anxious about his first online experience.
- In their response to the hello messages posted by their classmates, Marcia and Simon also stated that although anxious, they were enthusiastic about their online learning experience.

In week 5, Marcia and Simon completed an online task independently for the first time. After this point, neither Marcia nor Simon expressed any fear or anxiety to the instructor regarding accessing Blackboard and posting their work. The instructor inferred an improvement in comfort level based on observing the on-time submissions and the improved confidence by way of assertions when it came to taking a clear stand.

Intermittently, between weeks 6 and 14, Marcia and Simon expressed happiness at the progress that they were making and indicated via email and informal chats that they were mainly enjoying the electronic debates with the class. One such email from Simon read, “I can’t wait for you to post the next assignment.”

Marcia’s subsequent behavior contrasted markedly with her lack of comfort with technology in the beginning. For example, she was prompt in taking leadership by posting congratulatory messages and encouraging a peer who was lagging behind.

Simon, for his part, showed signs of being a more engaged learner when compared with the beginning of the course by proposing alternative assignment topics in week 11.

Also, Simon showed a greater sense of personal competence when he proudly shared with the instructor how he had learned to present his argument more logically by observing the postings of his classmates.

According to Simon, his confidence using technology had improved immensely by mid-point. In a discussion with the instructor, Simon explained that he owed this improvement in confidence to the tutoring that he had received from one of his computer-proficient college-mates.

The written comments in the self-report at the end of the course were a testimony to the change in Marcia’s and Simon’s feeling about learning online. Their description of the learning process highlighted three significant changes:

- In the beginning, Marcia and Simon had experienced fear and frustration, and showed resistance to technology.
- In week 5, when they had to complete their online assignment independently in asynchronous mode, they had suffered from anxiety but had managed to complete the task without external support.
- By the end, they claimed to feel confident in the online environment and expressed an enjoyment in learning online.

Evidence of Improved Skill with Technology

When the course began, Marcia had had some experience with email and working on Word documents but no experience with a Course Management System (CMS), such as Blackboard™. Simon, on the other hand, had no experience with creating word processing documents, emailing, or searching for information on the Internet.

Given that this was their first online learning experience, the orientation in the first week of the
course was their first exposure to the Course Management System. During this training session, the instructor introduced basic skills such as accessing the Blackboard\textsuperscript{TM} course site’s URL, learning to log-in, and navigating through the different sections of the course web site. In addition, the students participated in an introductory electronic discussion with the class by communicating through hello messages. As a follow-up in week 3, their first online task for this course was performed under the guidance of the instructor in the computer lab.

- A comparison between observations made early (first six sessions) and late (last six sessions) during the course revealed that Marcia and Simon made significant improvement from initially being novice users of Blackboard\textsuperscript{TM} in general, and the discussion threads in particular, to knowledgeable users. Despite lacking these skills at the beginning, by mid-point (sessions five and six), neither of them had trouble doing the following:
  - Launching an internet browser
  - Accessing the course web site
  - Logging-in successfully
  - Reading the announcement section
  - Referring to task descriptions under the course documents section
  - Entering the discussion board section
  - Reading and posting messages
  - Participating in a threaded discussion by responding to peers

- During weeks 4, 5, and 6, when in doubt, Marcia and Simon independently sought the assistance of the instructor on multiple occasions regarding opening relevant session documents and posting a response to the relevant discussion board sections.

- By week 7, Simon and Marcia had mastered opening and reading announcements, composing messages on the discussion board or posting them to the appropriate sections or responding to their classmates. In the last 5 weeks of the course from weeks 11 to 15, Marcia and Simon made no mistakes in logging-in, accessing, reading, or posting assignments and performed all of these tasks independently.

- For session 10, Marcia submitted three postings in developmental spurts for the same activity within a time period of two hours. [Posting one at 9.43 pm, posting two at 10.04 pm, and posting three at 10.38 pm]. In her post-course interview, Marcia mentioned that she felt comfortable enough to use her technology skills as she progressively developed her thoughts in a reflective asynchronous mode.

- In the second half of the course, Marcia and Simon used email when they needed clarifications regarding deadlines or specific issues related to the requirements of the assignment. This was in contrast to the first half of the course during which period the instructor had not received any emails from them. Simon had stated in an informal conversation with the instructor that he had avoided using emails in the first few weeks as much as possible because he lacked confidence in his own ability to use technology. Simon stated being more comfortable with stopping by the instructor’s office for informal chats to discuss his performance in the course. For one who had begun very hesitantly with emails, Simon began emailing the instructor around week 6 to seek clarifications, to help the instructor obtain video material, or just to discuss specific learning topics. In the second half of the course, he had emailed the instructor six times regarding different issues related to his learning.

- After week 6, Marcia’s and Simon’s ability to complete all online tasks without help from the instructor clearly demonstrated an improved skill set with technology. (see Table 1)

Evidence of Improvement in the Demonstration of Critical Thinking Within the Course

Learning to progressively create sound written and oral arguments by understanding and applying the concepts of logical thinking was a major objective of this course. Both Marcia’s and Simon’s writing showed evidence of progressive improvement in critical thinking. We will examine Simon’s and then Marcia’s contributions to course online discussion boards to understand their progress in the demonstration of critical thinking.

- The instructor observed that early in the course, Simon struggled to avoid viewpoints that were wishy-washy even though he was able to recognize vagueness in a peer’s writing. Simon also had difficulty writing a thesis statement in week 3, having not been exposed to this concept in writing before. This challenge was two fold in nature: (a) He was not sure how to take a clear stand on an issue, revealing difficulty with logical thinking, and
(b) He had difficulty as well with his writing (i.e., expressing his opinion clearly and succinctly in one or two sentences). For the very next task in week 5, Simon took a clear stand and attempted a thesis statement in the introductory paragraph.

- Furthermore, in the beginning Simon had difficulty in presenting his argument cogently. For example, he struggled to introduce assumptions or draw logical conclusions from premises. Also, Simon seemed unaware that it was important to present assumptions and was unable to anticipate an alternate point of view. Neither did Simon try to refute an opposite point of view to strengthen his stand.

In the latter half of the course, Simon (who had earlier not explicitly introduced assumptions in his writing) began to present his assumption as part of his information search. In week 5, Simon began by explaining his understanding of the given topic and clarified his assumptions. In week 10, Simon offered an explicit refutation when presented with an opposite point of view thereby strengthening his own stand.

- Simon’s ideas lacked consistency in their supporting details and overall coherence in the beginning. (For example, he stated that it might be okay to clone animals for medical research, but contradicted himself in a response to a classmate by suggesting that “it is wrong to take any life.”). His thesis, supporting arguments, and conclusion often were unrelated to each other and, therefore, presented a disjointed narrative.

- By the end of the course, substantial improvement in the quality of Simon’s reasoning was evident. For example, (a) supporting details presented were relevant and showed effective use of information search; (b) supporting arguments were usually but not always relevant to the stated thesis, (c) legitimate authorities were cited to substantiate his argument, and (d) broad principles were offered in support of his stand.

- Progressively, Simon’s presentation of ideas became more organized. In the first few weeks, his comments on the discussion board were short (two to three lines only), jumbled, and lacked a clear beginning, middle, and end. From week 6 onwards, the responses were longer (varied from half a page to a full page) and logically organized into paragraphs. Gradually, the notion of a beginning introduction, body, and conclusion was clearly discernible in the writing.

- In the beginning, Simon presented his stand in the first assignment as a short comment with hardly any supporting evidence. He did not show any evidence of research conducted. Simon’s first and second assignments showed no apparent understanding of how to develop a systematic argument. By the end of the course, the assignments posted by Simon on the discussion board were much different. He had gathered information on the given topic before taking a stand. Simon’s use of detailed examples was effective in supporting his argument. Simon demonstrated the improvement in research skills by presenting statistical evidence and by paraphrasing referenced sources.

The journey of the learning that Marcia went through was quite similar to that of Simon.

- For the first task, Marcia settled to describe the problem instead of taking a stand. However, by the end of the course, Marcia showed a genuine understanding of the importance of expressing and explaining a stand in an argumentative paper. For example, all of her final three tasks exhibited (a) analytical thinking exemplified in a clear stand, (b) an understanding of the difference between describing the problem and taking a stand, and (c) recognition of clarity when it appeared in her peers’ writing.

- Gradually, Marcia developed her skills in building details to support her argument. In the first 4 weeks, her arguments were often weak because they lacked supporting details or because the support that Marcia provided was not relevant or explicitly linked to her claim. By the end of the course, Marcia’s assignments included a stand and relevant support. Details presented in the body of her paper directly related to the thesis. Marcia used references correctly in her argument and tried to persuade the reader by giving reasons for favoring these sources.

- Before week 5, Marcia could not appreciate opposing viewpoints and on one occasion sounded defensive in response to a classmate’s opposite viewpoint. She hardly responded to a classmate with an opposing point of view. In addition, she seemed to struggle to persuade her classmate that her stand was right. While Marcia had only focused on presenting her argument in the first 4 weeks, she had not considered refuting a peer’s opposing view as part of her strategy. Marcia showed
appreciable progress in using rebuttals as part of her debate. In week 5 in the course, Marcia formally acknowledged a peer’s comment on the discussion board, thereby showing signs of taking other viewpoints into consideration. After week 5, Marcia provided useful examples as a counter point to refute her classmates’ stand. In week 7, Marcia questioned a peer’s opposite point of view more directly. Through this posting, she also demonstrated an improvement in her ability to relate the stand, support, and conclusion effectively.

- Marcia posted a message modifying her viewpoint on the topic of euthanasia about 10 days after the class had moved on to the next task. During an end-of-the course interview, she explained the need to post her change in viewpoint and suggested that her reflective thought process was strength for her as a critical thinker.

Evidence of the Development of Learner Autonomy

Marcia and Simon showed evidence of the emergence and gradual development of autonomy in the online learning environment by taking greater initiative and becoming less dependent on the tutor.

- At the beginning of the course, Marcia and Simon took instructions and followed the steps sequentially without asking many questions about the course work. They visited only the suggested list of sites for information gathering and did not do any additional information search. In week 3, Simon submitted his work online late indicating perhaps a lack of initiative.
- Initially, Marcia’s and Simon’s interactions with the instructor were limited to the classroom. While they participated actively in the regular class by raising questions, participating in small group discussions, etc., this behavior was limited to face-to-face interactions. In the online environment, they did the minimum of posting their assignments.
- It was not until week 6 that they showed signs of being “engaged” on the discussion board. Marcia took the initiative to contact the instructor in week 5. She arranged to meet with the instructor to correct a posting that she had posted under the wrong thread. Between weeks 5 and 10, Marcia emailed the instructor four times to resolve her doubts regarding the requirements of the assignments. In week 11, Marcia informed the instructor regarding a technical glitch in the CMS of which the instructor had not been aware.
- Simon who had begun the course with no email experience, emailed the instructor three times between weeks 6 and 14. His questions varied from checking whether he was on the right track to seeking a confirmation about deadlines. For the online tasks in week 5, 7, 12, and 13, Simon submitted his assignments early.
- Marcia and Simon went beyond the minimum course work requirements after week 5. When faced with the first online task (in week 3) of having to conduct an information search and then take a stand on the topic of cloning, they followed the instructions sequentially. In contrast, for the very next online task (in week 5) they began to show signs in their learning of the emergence of autonomy.

Instead of limiting their work to responding to the instructor’s question, after week 5, they initiated a cyclic communication process by creating an iterative loop of postings on the threaded discussion board that helped them reflect on the given problem and draw their classmates into a discussion. Both Marcia and Simon shared their information-search with their peers and discussed the different perspectives expressing the need to not be coerced to take a stand right away.

- One of the many ways to observe the development of autonomy is to monitor the decrease in dependence on the instructor. For example, in the first 5-6 weeks, both Marcia and Simon waited for the instructor to suggest when help was needed. But by mid-point, Marcia and Simon showed greater initiative in their interactions by asking questions by email, by visiting the instructor in the office, or by having informal discussions in the hallway. Marcia and Simon judiciously exploited face-to-face course sessions to seek clarification regarding online tasks.
- Because they lacked computer skills at the beginning of the course, both Marcia and Simon needed substantial emotional and technical support during the first 3 weeks of the course. In weeks 6 and 7, instructor support consisted only in providing occasional guidance. From week 7 on, Marcia and Simon posted all of their assignments correctly under the relevant threads and followed the instructions posted in the announcement and discussion board sections. In the second half of the course, Simon and Marcia completed all of their online tasks.
successfully with no prompting or guidance from the instructor.

- The frequency and degree of instructor intervention (as a means of facilitating online discussion) were also important factors to indicate that Marcia and Simon were becoming more independent as learners. The instructor’s presence was greatest during the first 5 weeks of the course. During this time, she directed Marcia and Simon in matters of netiquette, in technicalities of using the CMS, and in formulating learning objectives such as taking a strong and clear stand.

However, by week 10, Marcia and Simon were participating so actively with the whole class that the instructor became primarily an observer and intervened only when necessary. From week 10 on, the number of instructor postings dwindled and focused on providing direct feedback at the end of the discussion.

_Evidence of Breakthrough Points_

Even though they began with anxiety, frustration and anger at being challenged to come out of their comfort zone and enter into an unfamiliar online learning atmosphere, they made substantial progress with technology and conceptual analysis. How and when did Marcia and Simon make this transformation and was this change cumulative in nature or were there specific turning points in their learning?

From the data presented in the previous sections, it became clear that a breakthrough for both Marcia and Simon took place in week 5. Evidence includes the following:

1. Demonstration of improved technology skills evident in the completion of the online task without tutor support.
2. Improved confidence in learning and a lessening of fear and anxiety of the online learning environment.
3. Increase in the degree of independence in learning that was measurable by lesser dependence on the tutor.

To see the breakthrough in greater detail, reexamine certain pivotal points in their learning process by way of summarizing and restating evidence presented in the earlier sections. Among the different domains of learning, a major breakthrough was visible in the feelings toward online learning. The breakthrough point in overcoming fear of technology had occurred around week 5 when Marcia and Simon had submitted their online assignment on time independently with almost no support from the tutor.

The breakthrough was reflected in Marcia and Simon’s ability to be more in charge of their learning. From conversations with Marcia and Simon, the instructor learned that concerns over demonstration of critical thinking and anxiety over wanting to perform well enough to get a high grade continued for the rest of the course. Nevertheless, a major transformation was visible regarding the ability to successfully handle the technology skills as Marcia and Simon had completed the given online activity successfully. After this point, there were hardly any questions from Marcia and Simon about “how to access the course website,” “how to log-in,” or “where to click” to respond to a peer. The focus had changed to “how to improve the quality of logical thinking in my assignments.”

Generally, in the period following the breakthrough stage, Marcia and Simon showed improved comfort by being proactive in asking questions and seeking clarifications via email. They displayed a greater engagement in the online discussions by posting longer, more detailed, well-developed sound arguments. Marcia even began to take on a leadership role in motivating her classmates through encouraging comments. Marcia and Simon exchanged congratulatory remarks on taking clear stands or for presenting supporting details based on research. Undeniably, by the end of the course, Marcia and Simon showed a new enthusiasm for learning online.

Here is an excerpt from Marcia’s self-assessment:

_In spite of my apprehension of this online class, I have done exceptionally well. I was at first not very comfortable with the on-line class. I felt that the class would not be as effective as a traditional classroom setting. I found this to be a fallacy. The class was very effective; it allowed me to embark on a new instrument of learning, the Internet. I found it more comfortable and stress free._

From a combination of tutor feedback, peer assessment, self-assessment, and grades, Marcia perceived that her performance was meeting the course goals and her personal expectations as a learner. Notably, the breakthrough point is identifiable by the fact that neither Marcia nor Simon claimed that fear of technology was affecting their performance.

The main result is that all of these changes appeared to occur at approximately the same time, including (a) changes in feeling toward the course, (b) changes in comfort level and skill with the online learning environment, (c) performance in course assignments, and (d) demonstration of learner autonomy. All of these factors were tied together by an important episode in the learning performance: completion and submission of the second online assignment autonomously in week 5.
With evidence consisting of only two case studies, one may postulate that this simultaneity was purely a coincidence. Nevertheless, this evidence does provide the basis for a *prima facie* case that all of these changes may be part of an interconnected but single developmental process.

**Discussion**

College instructors, especially those who work with an at-risk student population, such as the one presented here, are extremely familiar with the profoundly detrimental effect that emotional barriers can often exert on academic success (Whitman, Spendlove, & Clark, 1984). In contrast, in the present study, we observed students overcome serious affective barriers to achieving academic success. As this happened, their emotional reactions to the instructional medium and course content changed from anger and resistance at the beginning to enthusiasm and involvement by the end.

How might an unpleasant experience such as conflict or anxiety have a positive effect on learning? The role played by this kind of experience might involve substantial emotional complexity. A possible model for this is the account offered by Freud (1940/1963) of how early resistance in psychotherapy is crucial for the later emergence of transference and hence for the effectiveness of therapy.

The students’ personalities, worldview, and self-image as learners may also, in part, explain the positive outcomes that eventually emerged. For example, Simon and Marcia both described themselves as confident and motivated learners at the very beginning of the course. Dweck and her colleagues (Dweck, Chiu, & Hong, 1995; Dweck, 1999) have shown that learner’s views of their own thinking and learning is related to their learning success. It is reasonable to postulate that something similar is happening in the case of Simon and Marcia.

It is difficult to say how quickly this kind of emotional transformation affects initially resistant students, even in the case of extremely well taught and well managed courses. But even if only a relatively small percentage of students made this transition, the present study contributes to knowledge in at least three ways.

1. As an existential proof that this kind of transformation does happen.
2. As a partial description of intellectual and emotional change on the part of students in transition (useful to instructors who monitor their students progress throughout a course as well as for researchers).

3. As a study that will hopefully lead to further research that will clarify the conditions that optimize the likelihood of this kind of transformation.

**Conclusion**

**Evidence for and Interpretation of Affective Change**

Describing the experience of a particular emotion is not in itself new (e.g., Ekman & Friessen, 1978; Ekman & Rosenberg, 1997). What is new, however, is the analysis of the place of this experience within an ongoing learning process. For both of our subjects, we observed that changes in emotional state happened concomitantly within the same time frame as specific cognitive and behavioral changes. These changes included greater proficiency with technology, improved mastery of course content and (in our opinion of greatest interest) evidence of increase in the degree of learner autonomy. Evidence of the participants’ emotional states comes from three convergent mutually-supporting sources. These were

1. Research seeking to document the concurrent self-report: The participant made one or more statements that described his or her experience of a particular emotion.
2. Behavioral observation: The participant acted in a way that would normally be accepted as a symptom of the emotion (e.g., avoiding a person, place, or activities when the subject said that he or she was afraid of it).
3. Retrospective self-report: In a follow-up interview, the participant reported retrospectively that he or she had experienced the particular emotion at the time in question.

Of particular interest is the fact that the observed changes in feelings about the course, for example, increased level of comfort with the instructional medium, improvement in quality of course work, and increase in degree of demonstrated learner autonomy all appeared to happen around the same weekly session of a 15-week course. First, this simultaneity offers *prima facie* evidence that they may all be in some way causally inter-related. Second, it may be useful to instructors in trying to distinguish stable changes in student reactions from random fluctuations.

The evidence that affect may play a role in a “plateau-to-plateau” learning process may be especially significant. First, it may reflect a similarity with patterns of change familiar from other domains. For example, according to Freud (1940/1963), therapy patients typically go through a period early in treatment
when they show anger with the therapist and resentment of the therapeutic experience (but not to the point that they actually withdraw.) Since Freud, clinicians have called this reaction resistance. At first, Freud saw resistance as a sign that the therapy was not succeeding. But with experience, he came to observe that resistance at the beginning was not only positive, but actually essential for the later success of treatment. As treatment progresses, resistance disappears and is replaced by an exaggerated admiration of the therapist, bordering at times on worship what Freud called “transference.” While nothing in this case study had the intensity of a typical transference reaction, the surface similarities in process may still reflect some similarities in underlying cause.

First, it is noteworthy that the pattern of resistance and acceptance occurs outside a clinical context as well, primarily under circumstances likely to be stressful. Bowlby (1969, 1988), Ainsworth, Blehar, Waters, and Wall (1978), and many other researchers have documented that infants and children, after the age of 8 months, show a similar pattern in reaction to separation from their primary caregiver. Kubler-Ross (1972) makes a similar observation about adults after the death of a close family member.

Second, in addition to this relationship with the process of resistance and transference, the present evidence of affect playing a role in plateau-to-plateau learning supports earlier claims that affect plays a crucial role in this kind of learning (Miller, 1986; Wadsworth, 1979).

Third, it connects this study with well-established cognitive research that has shown numerous instances in which cognitive change occurs through discrete transitions. Developmental studies by Piaget and Inhelder (1941, 1948, 1959) first presented this pattern, but many more recent studies have shown it as well. The work of Salmon (2000), a leading proponent within the field of online learning, is a case in example. This result provides support for the claim of Gray and his colleagues (Gray, 2001, 2004; Gray & Braverman, 2002) that affect and cognition, at least some of the time, work in conjunction.

The Relationship Between Affective Change and Increased Learner Autonomy

One especially encouraging feature of the documented pattern of change, given that these students are in transition, is that it led not just to tolerance and acceptance of previously upsetting experience - such as that of the online learning environment - but a shift to enthusiasm and commitment to them. Especially significant was evidence of substantial learner autonomy in the two students by the end of the course. This evidence included (a) doing supplementary work (outside reading, extra contributions to online discussion boards) beyond that required for passing the course, (b) rethinking arguments presented in class, (c) playing a leadership role in helping and encouraging peers, (d) working ahead of the rest of the class, (e) volunteering for extra assignments, and (f) expressing interest in self-paced learning.

Even though learner autonomy is a crucial trait not only for college success but also for developing the habit of life-long learning that many colleges encourage, models of how it can emerge are rare. To see this especially in academically under-prepared first-year students returning with trepidation to formal education augurs well because this initial transformation enables further development in autonomy in other learning contexts. Learner autonomy has been defined variedly as “a capacity for detachment, critical reflection, decision making, and independent action” (Little, 1991, p. 2), “the ability to take charge of one's own learning” (Holec, 1981, p. 3) and “a capacity and willingness to act independently and in co-operation with others, as a socially responsible person” (Dam, 1995, p. 1). Phillip Candy (1991, 2004), author of the most comprehensive review of learner autonomy research, views it as a personal trait that implies a capacity for lifelong learning rather than a habit of mind that can develop out of intentionally designed educational experiences. Contrary to what Candy states, the experience of Marcia and Simon provides evidence in favor of a developmental view. This fact suggests that instructors can reasonably hope to assist even fearful learners and those who lack self-confidence in their path toward becoming confident, skillful, and autonomous pursuers of knowledge.

References


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An Inter-Institutional Exploration of the Learning Approaches of Students Studying Accounting

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This paper provides a comparative analysis of the learning approaches of students taking their first course in accounting at a United States or an Irish university. The data for this study was gathered from 204 students in the U.S. and 309 in Ireland, using the Approaches and Study Skills Inventory for Students (ASSIST, 1997) which measures learning approaches on three dimensions: deep, strategic, and surface. The analysis reveals that while both samples favor a strategic approach over the other approaches, the U.S. students have a significantly higher score on the deep and strategic scales compared to the Irish students. Differences between the samples at the subscale level - such as students’ intrinsic interest, time management, and fear of failure - are also reported. Finally, the study contextualizes the findings by analyzing variations in the learning environment of the two universities.

While the student learning research agenda within accounting has been gaining momentum in many countries (e.g., Australia and United Kingdom), it is an area of research that has been relatively neglected by researchers in the U.S. (Apostolou, Watson, Hassell, & Webber 2001). This is somewhat surprising given the concerns expressed by the many reports reviewing accounting education in the U.S. (e.g., Albrecht & Sack, 2000; American Accounting Association [AAA], 1986; Arthur Andersen & Co., 1989) and the resultant calls for student learning research (e.g., Stout & Rebele, 1996; Williams, Tiller, Herring, & Scheiner, 1988). While accounting educators can learn a considerable amount concerning student learning from the general education literature, it is increasingly acknowledged that the nature, form, and context of a discipline shapes teaching and learning activities (Lucas, 2001; Lucas & Mladenovic, 2004; Meyer & Eley, 1999; Neumann, 2001). In addition, the need for multi-institutional studies and the replication of studies across boundaries has been stressed by those committed to the improvement of accounting education (Apostolou et al., 2001; Rebele, Stout, & Hassell, 1991; Stout & Rebele, 1996; Williams et al., 1988).

In response to the call to conduct student learning research within the discipline of accounting in the U.S., together with the identified need to instigate institutional and international comparative research, this study measures the approaches to learning of students studying accounting at a U.S. or Irish university. There are a variety of reasons for selecting the two universities in which this study was carried out. Firstly, both universities have close links, including staff exchanges and the delivery of joint programs. The authors teach at one of the universities and have spent time at the other. Secondly, in both universities, students have the opportunity to major in accounting or to take accounting courses as part of a wider business degree. Additionally, it was considered that known differences in the learning environments of the two universities would provide an interesting context for the study, as it offered the opportunity to conduct an exploratory examination of the impact of learning environment variables on students’ learning approaches. The discipline of accounting is a suitable context in which to carry out an international comparison given the similarities that exist in the accounting systems of the U.S. and Ireland. Both countries hold a shareholder view of accounting, operate a common law system, and have a strong accounting profession (Alexander, Britton, & Jorissen, 2003, pp.24-25). Additionally, the accounting courses offered at both institutions are similar in focus and content.

The remainder of the paper is organized as follows. The first section describes the approaches to learning paradigm that provides the framework for this study. It includes a discussion on the research instrument used and examines prior research investigating accounting students’ learning approaches. The second section describes the process of data collection and the testing of data reliability. The findings are then presented and discussed and the paper concludes by considering the implications of the findings and the limitations of the study.

Approaches to Learning Framework

The approaches to learning paradigm is one of the most widely used frameworks for understanding how students go about learning in higher education (Ramburuth & Mladenovic, 2004; Tight, 2003) and it is specifically concerned with discovering why some students learn better than others (Marton & Booth, 1997, p.16). It provides the basis for several seminal texts that seek to develop an understanding of learning
in higher education from the perspective of students (e.g., Biggs, 2003; Marton & Booth, 1997; Prosser & Trigwell, 1999; Ramsden; 2003; Richardson, 2000). Research into students’ learning approaches began in the 1970s at the University of Gothenburg in Sweden. This initial work used a qualitative, interview-based method, known as phenomenography, to investigate how students approached the task of reading an academic article and to assess their level of understanding of the content (Marton, 1975; Marton & Saljo, 1976). This research identified two distinct approaches to learning which were clearly associated with differences in the levels of understanding achieved. Students demonstrating a high level of understanding typically adopted what became known as a deep approach to learning, while students with a low level of understanding used what was described as a surface approach. In a later study, Ramsden (1979) identified a third approach to learning which he called a strategic approach. These three distinct approaches to learning have been confirmed by other studies in a range of disciplines and in a number of different countries, for example, Duff, (1997), Hounsell (1984), Morgan, Taylor, and Gibbs (1982), and Ramsden (1979, 1984) in the U.K.; Byrne, Flood, and Willis (1999) in Ireland; Watkins (1983) in Australia; and Van Rossum and Schenk (1984) in the Netherlands.

A deep approach to learning is characterized by a personal commitment to learning and an interest in the subject. Students adopting this approach set out with the intention of understanding the material, they interact critically with the arguments put forward, relate them to their prior knowledge and experience, and evaluate the extent to which conclusions are justified by the evidence presented (Biggs, 2003; Prosser & Trigwell, 1999; Ramsden, 2003). Consequently, deep learning is more likely to result in better retention, transfer, integration, and application of knowledge and lead to higher quality learning outcomes (Byrne et al., 1999; Ramsden, 2003; Watkins & Hattie, 1981). In contrast, a surface approach is characterized by a lack of personal engagement in the learning process. As such, students focus on rote-learning the material in an unrelated manner and they are constrained by the specific task. This approach leads to the misunderstanding of important concepts and poor quality learning outcomes (Booth, Luckett & Maldenovic, 1999; Ramsden, 2003; Watkins & Hattie, 1981). Students who adopt a strategic approach are primarily focused on achieving the highest possible grades. Their interest in content is driven by assessment demands and they use whatever learning strategy will maximize their chances of academic success (Entwistle & Ramsden, 1983; Watkins, 2000). These students have a competitive and vocational motivation and have been described as cue
seekers, in that they pursue hints regarding the content of assessment from their teachers (Duff, 2004).

Ramsden (2003) contends that the approach to learning is one of the most influential concepts to have emerged from research into teaching and learning in higher education. Indeed, Marton and Saljo’s (1976) original research into students’ approaches to learning is one of the most widely cited studies in educational psychology (Walberg & Haertel, 1992). The importance of this concept is clearly depicted in the model of student learning shown in Figure 1. This model demonstrates that the quality of student learning outcomes is influenced by students’ approaches to learning. Learning approaches are affected by students’ perceptions of the requirements of the learning task which, in turn, are influenced by both their perceptions of the learning situation (teaching, curriculum, and assessment) and personal factors, such as general orientations to studying and prior educational experiences. Students’ learning approaches are not intrinsic characteristics of students, but rather they are dynamic and are likely to change depending on how students’ perceive the learning task (Lucas & Mladenovic, 2004; Ramsden, 1987). Ultimately, students’ approaches to learning are highly sensitive to the context in which the learning occurs, which affords educators the opportunity to improve the quality of student learning (Prosser & Trigwell, 1999).

Measuring Learning Approaches - The ASSIST

While the first wave of research concerning students’ approaches to learning was phenomenographic in orientation and involved interviewing students (Marton, 1975; Marton & Saljo, 1976; Svensson, 1977), subsequent researchers developed inventories for use with large samples. The Approaches to Study Inventory (ASI) devised by Entwistle and his colleagues in the U.K. is probably the most widely used instrument on student learning in higher education (see chapters 6 & 7 of Richardson [2000] for a comprehensive review of the development of the ASI). The composition of the ASI was influenced by the findings from other studies exploring student learning in higher education (e.g., Biggs, 1976, 1979; Hudson, 1968; Marton & Saljo, 1976; Parlett, 1970; Pask, 1976). Over the years, a number of revisions were made to the original instrument; however, it was felt that these amendments somewhat sacrificed its conceptual integrity and also affected its validity and reliability (Richardson, 2000; Tait, Entwistle, & McCune, 1998). Thus, in the late 1990s, following extensive trialing, it was substantially revised and was titled the Approaches and Study Skills Inventory for Students (ASSIST; Tait et al., 1998). The validity and reliability of this latest version of the ASI has been confirmed by other studies in different countries and within different disciplines (Byrne et al., 1999; Byrne, Flood, & Willis, 2004; Diseth, 2001; Entwistle, Tait, & McCune, 2000; Kerber, 2003; Reid, Duvall, & Evans, 2005).

The ASSIST measures students’ approaches to learning on three main scales: deep, strategic, and surface. It contains 52 statements and respondents indicate their agreement with each statement using a five-point Likert scale where 1 = disagree and 5 = agree. The statements are combined into 13 subscales of four statements each, which are then further grouped into the three main scales, as outlined in Table 1.

Measuring the Approaches to Learning of Students
Studying Accounting

Outside the U.S., a number of studies have measured the approaches to learning of students in accounting courses. Bowen, Masters, and Ramsden (1987) found that first-year accounting students in Australia adopted a surface approach to learning. In a later Australian study using the ASI, Sharma (1997) found that second-year accounting students’ were unsure of their approach to learning, were highly syllabus-bound, and had a fear of failure. More recently at two Australian universities, Booth et al. (1999) used the Study Process Questionnaire (SPQ), a similar inventory to the ASI more commonly used in Australia and Hong Kong, to explore the relationship of accounting students’ learning approaches with their learning outcomes. They found that students favored a surface over a deep approach. They also reported a significant negative relationship between the surface approach and academic performance, but no relationship for the deep approach. Chan, Leung, Gow, and Hu (1989), using the SPQ, found that Hong Kong students had a tendency to rote learn and to focus on the bare fundamentals. In a later Hong Kong study, Gow, Kember, and Cooper (1994) reported that a deep approach to learning was more dominant in the first year of higher education than in later years.

In the U.K., Duff (1999) used the ASI to investigate the effects of differences in entry qualifications, gender, and age on students’ approaches to learning. He reported that age was positively related to a preference for a deep approach among students and that females were more likely to adopt a surface approach than males. In a further study seeking to understand academic performance among accounting and economics students, he identified two clusters of students which he labeled effective and ineffective learners. The effective learners had high scores on deep and low scores on surface, while ineffective learners displayed the opposite pattern (Duff, 2004).
Table 1

<table>
<thead>
<tr>
<th>Main Scales and Subscales</th>
<th>Meaning</th>
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<tbody>
<tr>
<td><strong>Deep Approach</strong></td>
<td></td>
</tr>
<tr>
<td>Seeking meaning</td>
<td>Intention to understand</td>
</tr>
<tr>
<td>Relating ideas</td>
<td>Relating to other parts of the course</td>
</tr>
<tr>
<td>Use of evidence</td>
<td>Relating evidence to conclusions</td>
</tr>
<tr>
<td>Related Motive</td>
<td></td>
</tr>
<tr>
<td>Interest in ideas</td>
<td>Interest in learning for learning's sake</td>
</tr>
<tr>
<td><strong>Strategic Approach</strong></td>
<td></td>
</tr>
<tr>
<td>Organized studying</td>
<td>Able to work regularly and effectively</td>
</tr>
<tr>
<td>Time management</td>
<td>Organize time and distribute effort to greatest effect</td>
</tr>
<tr>
<td>Alertness to assessment</td>
<td>Being alert to cues regarding the assessment</td>
</tr>
<tr>
<td>Related Motives</td>
<td></td>
</tr>
<tr>
<td>Achieving</td>
<td>Competitive and confident</td>
</tr>
<tr>
<td>Monitoring effectiveness</td>
<td>Checking progress to ensure achievement of aims</td>
</tr>
<tr>
<td><strong>Surface Approach</strong></td>
<td></td>
</tr>
<tr>
<td>Lack of purpose</td>
<td>Lack of direction</td>
</tr>
<tr>
<td>Unrelated memorizing</td>
<td>Not understanding material and relying on memory</td>
</tr>
<tr>
<td>Syllabus-boundness</td>
<td>Relying on lecturers to define learning tasks</td>
</tr>
<tr>
<td>Related Motive</td>
<td></td>
</tr>
<tr>
<td>Fear of failure</td>
<td>Pessimism and anxiety about academic outcomes</td>
</tr>
</tbody>
</table>

Davidson (2002), in a Canadian study, found that the students’ scores as calculated from their responses to the SPQ were higher on the surface scale than their scores on the deep scale. He also considered the association between students’ learning approaches and their performance in the module. The only significant association identified was between the use of a deep approach and students’ performance in complex examination questions. Using the ASSIST, Byrne et al. (1999) reported that first-year students in Ireland showed no strong preference for any particular approach. In a later study, undertaken with students who were majoring in accounting, significant positive relationships between the deep and strategic approaches and performance were found (Byrne, Flood, & Willis, 2002). Further, the study revealed a highly significant negative correlation between the surface approach and performance.

In a recent study of students taking introductory accounting courses at two U.S. universities, relationships between students’ learning approaches and performance were also reported (Elias, 2005). More specifically, the deep approach was found to be significantly positively correlated with expected course grade and with overall GPA, whereas the surface approach showed a significant negative correlation with these variables. This study used a modified version of an instrument developed by Holschuh (2000), which was originally designed for use with biology students. However, no information on the validity or the reliability of the instrument for use with accounting students was provided.

On the whole, these prior studies indicate that students studying accounting are likely to favor a surface approach or to show no strong preference for any particular approach. In light of the high quality learning outcomes desired by higher education and the accounting profession (Duff, 2003; International Federation of Accountants [IFAC], 2003), the absence of a preference for a deep approach is particularly worrying. Such desired outcomes are predicated on developing students’ understanding, so that they have the foundations for life-long learning (IFAC, 2003). Understanding is not about juggling formulae or memorizing textbook knowledge, rather it encapsulates the development of a personalized sense of meaning of the core principles and practices of the discipline (Ramsden, 2003). Thus, there is an obvious need to extend this stream of research and to identify factors that foster particular approaches. Moreover, it is clear that inter-institutional comparative studies will aid this research agenda, as they will offer an opportunity to identify how differences in the learning environments impact on student learning. Hence, the objective of this study is to measure and compare the learning approaches of students studying accounting at a U.S. or an Irish university and to consider the influence of learning environment variables on these approaches.

Data Collection and Tests of Reliability

The first course in accounting was selected for this study, as it is important in developing students’ understanding and interest in accounting regardless of their future study and career intentions. In the U.S., it has also been identified as the course which is in need of most attention (AECC, 1992; Baldwin & Ingram, 1991; Chen, Jones, & McIntyre, 2005; Geiger
The data were collected using the ASSIST which the students completed anonymously during a lecture in the final weeks of their course. The students were assured that their answers would only be used for the purposes of this research. The U.S. data were gathered at a private east coast university that has a student population of approximately 16,000 full-time and 7,000 part-time students. The Irish data were collected from students attending a publicly funded university with a student population of approximately 6,500 full-time and 2,000 part-time students. For ease of description, the students studying at the U.S. university are hereafter referred to as U.S. students. Similarly, the students at the Irish university are referred to as Irish students. It is acknowledged that these descriptions may not appropriately describe the nationality of all participants. Details of the population and sample at the U.S. and Irish university are provided in Table 2, where it can be seen that the response rate achieved was 89% and 75% respectively. With such high response rates among both samples, there is no reason to suspect non-response bias. The U.S. respondents had been required to take a general first year prior to commencing their business courses, while all the Irish students were in their first year; nevertheless, the age profiles of both samples are similar.

To derive the mean scores for the three approaches to learning, the scores for the 13 subscales of the ASSIST were computed by summing the individual students’ responses to the four statements within each subscale. Then, the scores for the main scales were calculated by combining the scores of the relevant subscales. As there are four subscales in the deep and surface scales and five subscales in the strategic scale, each scale was divided by the number of constituent subscales to standardize the scores, thereby facilitating comparison between the three approaches. This results in a maximum score for each scale of 20 and a minimum of 4.

When using a standard instrument for data collection, it is reasonable to rely on the validity information of prior studies which used similar samples, though it is recommended that evidence of the internal reliability of the data of each study is provided (Duff, 2001). The ASSIST was previously validated for use with students in the U.S. and Ireland with a sample that was similar in make-up to that used in the current study (Byrne et al., 2004). Using factor analysis, the validation study confirmed the existence of the three expected learning approaches. Furthermore, it revealed comparable factor patterns for both the U.S. and Irish cohorts and hence the instrument is suitable for use in the current study. An analysis of the data in the present study reveals that the Cronbach alpha values for the main scales for the U.S. sample range from 0.80 to 0.87, while the values for the Irish sample range from 0.82 to 0.86, indicating high internal reliability. The alpha values for the subscales range from 0.50 to 0.75 for the U.S. sample and from 0.53 to 0.72 for the Irish sample. These values are acceptable for scales of this length and type (Entwistle et al., 2000) and are similar to values in other reported studies that used the ASSIST (Byrne et al., 1999; Diseth 2001; Entwistle et al., 2000; Tait et al., 1998).

To explore the differences in the scores on the three main scales, a univariate analysis of variance using the Duncan post hoc test was conducted for both the U.S. and Irish data. Mann-Whitney U tests were conducted to examine the differences between the scores of the two cohorts of students. The results are presented in the next section of the paper.

Results

The mean scores of the main scales for both the U.S. and Irish students are shown in Table 3. A univariate analysis of variance test showed significant differences in the preferred approaches of the U.S. (F = 25.897, p < 0.01) and the Irish (F = 7.214, p < 0.01) students. For the U.S. students, the highest score is on the strategic scale with the lowest score on the surface scale. A Duncan post hoc test showed that there are significant differences between their score on the strategic scale compared to their scores on both the deep scale and the surface scale. Furthermore, the difference between the deep and surface scores is also significant. A Duncan post hoc test for the Irish students revealed that the score for the strategic scale is significantly higher than the scores on other two scales. No significant difference between the deep and surface scores were found for the Irish cohort.

As an objective of this study is to compare the learning approaches of both groups of students, Mann-Whitney U tests were carried out to identify any significant differences in their mean scores. As seen in Table 3, the U.S. students have significantly higher scores on the strategic and deep scales compared to the Irish students; however, there is no significant difference between their scores on the surface scale. To develop an understanding of these similarities and differences between the approaches to learning of the two groups of students, the scores of the subscales within each of the main scales were examined and are presented in Table 4.

A review of the subscales within the deep approach revealed that both samples display a similar intention to understand material. However, the U.S. students exhibit a higher intrinsic interest in learning and show an enhanced willingness to integrate ideas and to relate evidence to conclusions. Regarding the strategic approach, there is a significant difference between the
Table 2
Specific Statistics Regarding the Sample

<table>
<thead>
<tr>
<th></th>
<th>U.S. University</th>
<th>Irish University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>230</td>
<td>411</td>
</tr>
<tr>
<td>Completed questionnaires</td>
<td>204</td>
<td>309</td>
</tr>
<tr>
<td>Response rate</td>
<td>89%</td>
<td>75%</td>
</tr>
<tr>
<td>Average age of respondents</td>
<td>19.5 years</td>
<td>19 years</td>
</tr>
<tr>
<td>Male to female ratio</td>
<td>55 : 45</td>
<td>45 : 55</td>
</tr>
</tbody>
</table>

Table 3
Mean Scores of Main Scales

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>Irish</th>
<th>Difference in mean scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep</td>
<td>13.65</td>
<td>12.57</td>
<td>1.08 **</td>
</tr>
<tr>
<td>Strategic</td>
<td>14.28</td>
<td>13.34</td>
<td>.94 **</td>
</tr>
<tr>
<td>Surface</td>
<td>12.53</td>
<td>12.78</td>
<td>-.25</td>
</tr>
</tbody>
</table>

Note: ** p<.01

Table 4
Mean Scores of Subscales

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>Irish</th>
<th>Difference in subscale mean scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeking meaning</td>
<td>13.73</td>
<td>13.40</td>
<td>.34</td>
</tr>
<tr>
<td>Relating ideas</td>
<td>13.77</td>
<td>12.26</td>
<td>1.51 **</td>
</tr>
<tr>
<td>Use of evidence</td>
<td>14.39</td>
<td>13.70</td>
<td>.69 *</td>
</tr>
<tr>
<td>Related motive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest in ideas</td>
<td>12.84</td>
<td>10.97</td>
<td>1.87 **</td>
</tr>
<tr>
<td>Strategic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organized study</td>
<td>13.84</td>
<td>11.53</td>
<td>2.30 **</td>
</tr>
<tr>
<td>Time management</td>
<td>13.64</td>
<td>11.92</td>
<td>1.73 **</td>
</tr>
<tr>
<td>Alertness to assessment demands</td>
<td>14.10</td>
<td>14.67</td>
<td>-.57 *</td>
</tr>
<tr>
<td>Related motives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achieving</td>
<td>14.96</td>
<td>13.88</td>
<td>1.07 **</td>
</tr>
<tr>
<td>Monitoring effectiveness</td>
<td>14.82</td>
<td>14.84</td>
<td>-.02</td>
</tr>
<tr>
<td>Surface</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of purpose</td>
<td>10.99</td>
<td>10.08</td>
<td>.90 **</td>
</tr>
<tr>
<td>Unrelated memorizing</td>
<td>11.57</td>
<td>12.33</td>
<td>-.77 *</td>
</tr>
<tr>
<td>Syllabus boundness</td>
<td>14.71</td>
<td>14.93</td>
<td>-.23</td>
</tr>
<tr>
<td>Related motive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of failure</td>
<td>12.95</td>
<td>13.83</td>
<td>-.88 *</td>
</tr>
</tbody>
</table>

Note: ** p < .01. * p < .05

two samples on four of the five subscales. The U.S. students are more organized in their study, manage their time better and are more committed to performing well, while the Irish students are more alert to assessment demands. There is no significant difference in the scores for monitoring effectiveness between the samples. In the case of the surface scale, while the U.S. group indicates a higher degree of uncertainty regarding the purpose of their studies, the Irish group is more likely to rote-learn and have a greater fear of failure. Interestingly, both groups report similar high scores for syllabus-boundness.

Discussion

At the outset, it is worth noting that the pattern of scores of both groups of students on the three main scales is similar: both the U.S. and Irish students favor a strategic approach to learning over either a deep approach or a surface approach. It is comforting to educators in both settings that the surface approach, which ultimately results in poor quality learning outcomes, is not the favored approach of their respective students. However, it is disappointing to find that neither educational context leads to students favoring the preferred deep approach to learning.

As was outlined in the discussion of Ramsden’s model of learning (Figure 1), students’ learning approaches are influenced by a wide range of factors that can be broadly described as either personal or situational. Many of these influencing variables - for example, academic ability, prior learning experiences, or cultural context - are intrinsic to the individual student or the environment and cannot be changed by accounting educators. Consequently, in this study, the exploration of similarities and differences of the learning of the two
groups of students concentrates on factors in the learning environment which are controllable by accounting educators or their institutions. This does not mean that intrinsic factors do not influence learning approaches, but such factors are not the focus of the current study. Indeed, it is not feasible within a single paper to explore all potential variables which may influence students’ approaches to learning when addressing a learning task. As already indicated, the two cohorts of students in this study are both pursuing their first course in accounting and the content of the courses is similar: introducing students to the basic principles and practices of accounting. However, there are clear differences between the two universities regarding the delivery and assessment of the relevant courses.

The Irish students attend large group lectures (up to 200 students) where the material is presented by the course instructor. By virtue of the class size, the communication during lectures is typically one-way (i.e., from instructor to students). Thus, there is little scope for meaningful interaction and discussion during lectures. To facilitate communication and interaction, all students taking the course are assigned to a tutorial session (approximately 25 students), which meets weekly to address some of the material presented in lectures. The objective of these sessions is to stimulate discussion. However, the feedback received from the tutors who deliver these tutorials is that, more often than not, the sessions focus on the practical aspects of topics and the students remain relatively passive. Furthermore, the tutors are postgraduate students who are not trained in, or particularly comfortable with, engaged learning techniques. Thus, the students in the Irish university experience a teacher-centered classroom environment which is mainly focused on the transmission of information with very little student engagement. Prior research has shown that this type of learning environment is less conducive to fostering a deep approach to learning (Campbell, Smith, Boulton-Lewis, Brownlee, Burnett, Carrington, et al., 2001; Trigwell & Prosser, 2004; Trigwell, Prosser, & Waterhouse, 1999). In contrast to the Irish situation, the students in the U.S. university are taught in small classes (no more than 40 students per class) throughout their accounting course. While on sabbatical in the U.S. university, the authors observed the interaction in many of these classes and confirmed with the instructors that what they observed was the norm in all their first-year accounting classes. In the classroom environment of the U.S. university, the focus is clearly on developing students’ understanding of the course content through lively engagement. The instructors actively challenge students as well as encourage them to engage in the learning process and to develop a personal interest in their studies. Also, unlike the Irish students, the U.S. students appear to have a close rapport with their instructor and the intimacy of the smaller physical space makes the students more visible and promotes greater participation. This teaching approach of supportive learning is a likely contributor to the higher scores reported by the U.S. students on the deep subscale of relating ideas, use of evidence and interest in ideas. Indeed, Campbell et al. (2001) found that a deep approach to learning is facilitated by a supportive classroom environment that encourages high levels of participation. Similarly, Trigwell, Prosser, Ramsden, & Martin (1998) reported that when teachers adopted more student-focused approaches to teaching, their students engaged in deep learning. In such an environment, students are ‘trapped’ into engaging with appropriate learning activities (Biggs, 2001).

A further marked difference between the learning context experienced by the U.S. and Irish students relates to the structure of assessment. One of the most robust findings of higher education research is that assessment is a key driver of student learning (Biggs, 1996; Boud, 1990; Crooks, 1988; Elton & Laurillard, 1979; Jones, 1996). The assessment of the accounting course in the U.S. is made up of a series of in-class tests and short assignments. In contrast, the Irish students are assessed by means of a single assignment and a formal terminal examination, which usually represents approximately 80% of the overall mark of the course. It appears that the ongoing assessment experienced by the U.S. students helps develop their time management and organizational skills. Furthermore, it is feasible that receiving grades during class-time motivates the students to achieve good results and to do well in the eyes of their peers. Interestingly, in a recent study, Mattern (2005) contended that competitiveness within U.S. college classrooms may impact on students’ goal orientations and motivation. Prior studies within medical education (Becker, Geer, Hughes, & Strauss, 1961) and accounting education (Power, 1991) reported that frequent assessment, where results are made known to the full class, motivates students to develop tactical ways of learning that facilitate assessment success. On the other hand, the Irish students are less organized than their U.S. counterparts and are less focused on time management and are less achieving oriented. It is highly likely that the absence of regular assessment contributes to the lower scores of the Irish students on these dimensions of the strategic scale. As the main assessment for the Irish students is a terminal examination, they are more alert to examination cues, but they find less need to organize their study activities or to manage their time effectively on an ongoing basis. This is consistent with the findings of Byrne and Flood (2005) who qualitatively explored the learning experiences of first year accounting students in the same university as the current study. They reported that students spent far less time studying throughout the academic year than what was expected by the instructors and that they did not plan their study activities. Rather, students’ study behavior, in
terms of time commitment and material covered was heavily influenced by the onset of examinations. In the current study, it is possible that as the students are privately informed of their examination results during the vacation period, there is less overt competition among the students, and this may lead to lower levels of an achieving orientation. The dominance of the terminal examination in the Irish system may also help explain why, within the surface scale, the Irish students report a significantly higher fear of failure and a greater likelihood to rote-learn.

Many of the described features of the learning environment in the U.S. university appear to have a positive and desirable affect on the learning approaches of students, yet there are a number of dissonant effects that are interesting to note. Firstly, despite the student-centered classroom environment experienced by the U.S. students, there is no significant difference between their score on the deep subscale that captures their intentions to seek understanding in their studies compared to that of the Irish students. Indeed, it could be argued that the Irish students’ intention to seek meaning is probably more personally motivated than the U.S. students whose learning activities are more directed by their instructors. Ultimately, this independent aspect of the Irish students’ learning is aligned to the lifelong learning ethos of higher education. The second dissonant feature of the results is that there is no difference between the groups regarding their ability to monitor their own progress within the strategic scale. Again, given the extent to which the U.S. students receive feedback, it might be expected that they would be better able to judge their progress compared to the Irish students. However, in many instances, the U.S. students are not provided with any meaningful commentary on their performance. It should be noted that prior studies have indicated that the provision of an unembellished grade or feedback that is vague and difficult to interpret is of limited value to learning (Higgins, Hartley, & Skelton, 2002; Yorke, 2001). Alternatively or additionally, the similarities in the scores on this dimension may be due to the Irish students’ alertness to assessment demands and their skill in judging what is needed for them to perform satisfactorily. Thus, this suggests that the development of students’ self-monitoring skills may be independent of any formal feedback. This ability to assess one’s own performance is undoubtedly a very useful lifelong learning skill and is particularly valuable for those students entering the accounting profession where they will have an ethical responsibility to monitor and maintain their professional competence.

A further point of interest from the results is that, within the surface approach, the Irish students report significantly lower levels of lack of purpose in their study. This may be attributable to their greater independence in learning, but it is more likely to be due to the fact that a substantial percentage of the Irish students (57%) have already decided to major in accounting, while only 9% of the U.S. students declared their intention to major in accounting. It is also notable that both cohorts of students report very high scores regarding syllabus-boundness, indicating that they read little beyond what is assigned by their instructors. These high scores in both contexts may indicate a lack of curiosity by the students, but it may also indicate that the long-held criticism of accounting education regarding overloaded, technically-oriented syllabi (Bandy, 1994; Power, 1991; Tinker, 1985; Zeff, 1979) is a feature of the courses in both universities.

Implications

Despite the aforementioned differences in the educational contexts in the U.S. and Irish universities, both groups of students favor a strategic approach to learning. However, the analysis shows that while both groups are anxious to do well, neither group has a strong intrinsic interest in learning accounting, as evidenced by the relatively low scores on the interest in ideas subscale. If educators are to achieve the learning objectives espoused by higher education and professional bodies, they need to create a learning environment which stimulates deep learning. Thus, they must ensure that there is constructive alignment of the curriculum, teaching, and assessment (Biggs, 2003). Within this constructive approach, the objectives of the curriculum and the levels of understanding which students are expected to achieve must be explicitly stated. It is essential that the teaching methods employed support the attainment of these objectives and that the assessment techniques test how successfully students achieve them. It is important that students are given enough autonomy to allow them to develop as independent learners but not so much freedom that they feel lost, frightened, or disillusioned. In a constructive supported academic setting, students will be purposively motivated to engage in learning for understanding and, hopefully, through this process they will gain personal satisfaction and enjoyment, which will further cultivate their interest in learning. Through such good teaching practices, educators can engage students in ways that foster deep approaches to learning (Ramsden, 2003).

As many of the students in this study indicated a low level of interest in learning accounting, there is a need to take steps that will give them a better understanding of why they are studying the subject. Fransson (1977) showed that intrinsic motivation was related to the adoption of a deep approach, while students’ failure to perceive the relevance of the material being studied was associated with surface approaches. Thus, educators need to stress the benefits of courses by identifying the particular knowledge and skills being developed and by highlighting how these will be useful to students’ future...
careers. If instructors are to stimulate students’ intrinsic motivation, they must focus on what interests their students and design their material appropriately (Marton & Saljo, 1997). The high levels of syllabus-boundness reported in this study are not that surprising, given that the first course in accounting typically emphasizes mastering defined accounting techniques. However, this focus can create a very negative image of accounting, which in turn may dissuade students from majoring in the subject. Thus, there is an onus on accounting instructors to include topics in the curriculum that will stimulate students to read more widely and will hopefully instill a greater curiosity about the subject. Ramsden (2003) emphasized that independence and freedom in learning lead to high quality learning outcomes.

Limitations

In interpreting the above findings, it is important to be aware of the limitations of the study. Firstly, the ASSIST measures the broad learning approaches of a group of students, but it fails to fully capture the complexity of learning and studying at the individual level. Thus, to explore the individual richness of student learning, combining qualitative and quantitative research has much to offer educators. Additionally, qualitative research would be extremely useful in assessing the strength of the inferences made in this paper. Secondly, while it is acknowledged that an evaluation of the nature of the assessments/examinations may be useful in interpreting students’ approaches to learning within a course, it was not possible to do this in the current study. Thirdly, as with so much quantitative research, a larger sample would increase the generalizability of the findings. Additionally, gathering data from more than two universities would also be useful in capturing greater variation in students’ approaches to learning and in identifying the contextual factors contributing to this variation. Finally, it must be recognized that interpretation of the differences found in this study may be potentially confounded by naturally occurring intrinsic variations in the two groups of students, such as intellectual ability and cultural background. There would be considerable merit in exploring the impact of intrinsic variables on student learning in future comparative studies. However, despite these limitations, the findings of this study provide U.S. and Irish accounting educators with an enhanced understanding of student learning. Furthermore, while the study was conducted within the accounting discipline, many of the emerging issues are likely to occur in other disciplines and thus the findings are of interest to the broader academic community.

Conclusions

This study used comparative analysis to explore students’ approaches to learning within the discipline of accounting. Within the student learning paradigm and using the ASSIST, data were gathered from students taking their first course in accounting at a U.S. or an Irish university. The analysis revealed that both cohorts of students favor a strategic approach to learning over a deep or surface approach. This pattern was evident despite the existence of some significant differences in the learning environment of the two relevant universities. The similarities and differences in the learning approaches of the U.S. and Irish students were examined by analyzing the various dimensions of the three main scales. This paper contributes to the student learning literature by measuring approaches to learning in accounting, in a setting which to date has been largely neglected, namely the U.S. Furthermore, by using a comparative approach, this study enables educators to gain an appreciation of the impact of course delivery, class size, and assessment on students’ learning approaches. Finally, the paper outlines opportunities for future research.

References


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approaches and learning experiences in higher education and in the professional accounting context.

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Assessing the Impact of a Year-Long Faculty Development Program on Faculty Approaches to Teaching

Greg Light, Susanna Calkins, Melissa Luna, and Denise Drane
Northwestern University

This paper reports findings from an empirical four-year study designed to investigate the relationship between key constructs of an extended model of teaching and learning in higher education. Using a mixed-methods approach, we sought to assess the impact of a year-long faculty development program (FDP) designed for pre-tenure faculty on participant approaches to teaching. From our analysis of participant critical reports of teaching, post-program interviews, and the Approaches to Teaching Inventory (ATI), we found evidence of positive change in the approaches to teaching of junior faculty participants in the FDP. All three methods elicited evidence indicating that participating faculty moved towards more conceptual change/student focused approaches to teaching, and that a significant part of that change could be attributed to their participation in the program.

In a climate in which faculty accountability is ever more dependent on research and scholarship, especially as rewarded by promotion and tenure, improvement in the quality of teaching is an increasing concern. The development of high-quality teaching practice is critically important, especially for tenure-track faculty pressed by the demands of publication and research (Boice, 1992; Fairweather, 2002; Tang & Chamberlain, 2003; Wolverton, 1998). Faculty members at research intensive institutions often must negotiate conflicting expectations about teaching and research: the university may seem to publicly laud good teaching, but privately value good research more, especially in decisions of promotion and tenure (Leslie, 2002; Wright, 2005).

While a proliferation of teaching centers has sought to address the increasingly complex challenges of teaching in higher education through faculty development programs (FDPs), and a scholarship of faculty development has begun to flourish (Eggins & Macdonald, 2003; Elvidge, 2004), there has been a comparative dearth of research looking at the impact of these programs. In this study, we seek to investigate the relationship between key constructs of an extended model of teaching and learning in a research-intensive context (described more fully below). Using a mixed-methods approach, we draw on a comprehensive four-year study of a FDP designed for pre-tenure faculty in order to assess the impact of a year-long FDP on faculty approaches to teaching

Model of Teaching & Learning

Kember’s (1997) descriptive model of learning and teaching helps illustrate how faculty conceptions of teaching and student learning outcomes are linked by a series of related and mediating constructs: specifically teachers’ approaches to teaching in a particular course and student approaches to learning in that course (Figure 1). This model further holds that a teacher’s conceptions of teaching and approach to teaching may be affected by curriculum design and departmental and institutional pressures (Kember & Kwan, 2000). While the model has not been fully tested, individual aspects have been investigated, providing mounting evidence for their causal relationships to one another. In particular, the components of the model that address the relationships among student presage factors, student learning approaches, and learning outcomes have been widely studied (Biggs, 1987; Dart & Boulton-Lewis, 1998; Entwistle & Smith, 2002; Kember, Biggs, & Leung, 2004).

Recently, more attention has been paid to characterizing conceptions of teaching and teaching approaches. Research has shown that there are two broad orientations towards teaching approaches (Kember, 1997; Prosser & Trigwell, 1999; Trigwell & Prosser, 2004), although there is some variation in the specific descriptions and theoretical distinctions of the orientations (Akerlind, 2003; Trigwell, 2003). Recent studies have distinguished between faculty who are concerned with teaching as essentially an organization of the content of the teacher’s knowledge for transmission to the students—information transmission (IT)—and those who regard teaching as facilitating their students’ personal construction of knowledge, also referred to as conceptual change (CC).

Kember (1997) found that 13 independent empirical studies identified similar conceptions of teaching of university academics, describing the two main orientations as teacher-centered/content oriented and student-centered/learning oriented. A third category, the student-teacher interaction, links the two orientations. Similarly, Prosser and Trigwell (1999) described the variation in the ways in which faculty
experience teaching in higher education in terms of both conceptions of teaching and approaches to teaching. They identified six conceptions of teaching, which focus on the ways instructors conceive of, or understand teaching, and five approaches to teaching, which focus on the instructor’s actual teaching strategies and intentions. Both conceptions and approaches range from being teacher-centered to learner-centered, and from transmitting information (and being content oriented) to promoting conceptual change (and being learning oriented). As in Kember’s model, a third transitional category, links the two orientations.

Kember and Kwan (2000) later concluded, in their study of 17 university teachers, that teaching conceptions inform teaching approaches; thus, a learner-centered conception of teaching is required in order before any real change towards quality teaching and learning can occur. Also significant, research on these two main teaching orientations has disclosed an important relationship between faculty approaches to teaching and student approaches to learning (Gow & Kember, 1993; Kember & Gow, 1994; Prosser & Trigwell, 1999; Sheppard & Gilbert, 1991). IT approaches to teaching correlate with increased surface approaches to learning and CC approaches to teaching correlate more strongly with students’ deeper approaches to learning.

This model, however, simply describes the structural relationship of key constructs in the practice of learning and teaching in higher education. We propose an extended, dynamic model in which interventions to impact key constructs are undertaken through formal faculty development activity (Figure 1 – see shaded area). Formal faculty development activity is, of course, not the only possible category of developmental faculty activity that might impact key constructs of teaching and learning. Informal activities including discussion with peers as well as undergraduate and graduate students can have substantive developmental effects. Faculty often find, for example, that such collaborative activities as informal mentoring, feedback from colleagues, conversations with peers and students, teaching support networks, and so on were very useful in developing their teaching (Ferman, 2002). To include them within a substantive model of teaching and learning, such informal activities would need to be framed and developed in terms of a credible teaching and learning model. For this reason, the faculty development construct discussed in this paper is focused on a formal professional development
activity with established learning and teaching objectives.

Reviews of more formal faculty development programs in higher education reveal a range of diverse goals that include the development of specific skills, the increased ability to reflect on teaching practice, and the development of self-confidence (Coffey & Gibbs, 2001; Gilbert & Gibbs, 1999). An increasing number of studies, however, have been framed in terms of the above model, looking at how programs might directly impact key constructs of the model, specifically faculty understanding of and approaches to teaching (Ho, Watkins, & Kelly, 2001; Trigwell, 2003). In an international study of 20 faculty development programs (FDPs) in 8 different countries, Gibbs and Coffey (2004) found that FDPs can increase the extent to which faculty take student-focused conceptual change approaches to teaching and, can, thereby, improve their student’s approaches to learning. A separate independent study, Light, Luna, Drane, & Fleming (2004) also reported that participation in a substantive FDP can have a positive impact—gains towards CC approaches to teaching—on the development of faculty teaching.

This paper empirically examines the relationship between two key constructs of the above extended model: the impact of a faculty development intervention (program to improve teaching) on approaches to teaching. This paper focuses on the hypothesized relationship between the “FDP intervention” construct and the “approaches to teaching” construct. It will also provide preliminary evidence for the hypothesized relationship between the “FDP intervention” construct and the “curriculum design” construct.

Method

FDP Design

The design of the FDP in this study draws on a model of faculty development characterized by professional reflection and inquiry (Light, 2003; Light & Cox, 2001). The model is also consistent with McKenzie’s (2002) findings that teachers who focused on variation in ways of experiencing teaching, particularly the variation between student-focused and teacher-focused ways of experiencing teaching and learning, were more likely to be aware of student focused approaches to teaching. The program is designed to facilitate deeper knowledge, understanding, and expertise in learning and teaching; to encourage evidence-based approaches to learning and teaching; and to help develop or revise a new or existing course. In terms of the length of program (8 months), hours of commitment (75+), and its focus on new faculty (pre-tenure), the scope of the program is comparable to other substantive FDP’s from eight countries including many providing academic and professional certification (Gibbs & Coffey, 2004). Participants attend monthly dinner workshops led by faculty from the teaching center and a two-day retreat. Additionally, participants attend three project group meetings, 3-4 teaching and learning workshops, and consultation meetings with mentors and center faculty. Over the four years described in this study, the program was run in essentially the same way with change in only one of the three main facilitators.

Study Design

This study takes a mixed method approach to assess the impact of the FDP on change in faculty approaches to teaching. The focus of the study is on whether or not there was change which might be attributable to the FDP and less so on the extent or depth of that change. In addition to substantially increasing the number of subjects in the study from a previous study (Light et al., 2004), the design employs three methods to assess change. The first looks at changes in how faculty approach their teaching as measured by the Approaches to Teaching Inventory (ATI) at the beginning and end of the program. The study employed a treatment group of junior tenure line faculty who took the program and a control group of comparable junior tenure line faculty who did not take the program. The second method focuses on reports of actual change implemented in or planned for their teaching, as indicated in written critical reports of the teaching projects which each program participant submitted at the end of the program. The third method examines statements of change made by participants during in-depth post-program interviews.

Participants

Over four years, 52 faculty members (13, 11, 12, and 16 respectively) participated in the program in four separate annual occurrences of the program. One person dropped out during each of the first 2 years and the last year. The 49 remaining faculty represented a wide range of disciplines. Twenty-nine were from sciences, medicine and engineering disciplines, and 20 were from the social sciences and humanities; 48 of 49 participants attended at least 70% of the planned activities, and 40 attended 90-100% of these activities. Participants received a modest stipend for educational expenses upon their successful completion of the program requirements, which included the written critical account described in this paper, but they did not receive funds or gifts for participating in the study.
There were 29 faculty members in the control group. They were drawn from the same pool of faculty as the program participants, which included all university schools and departments. The control group consisted of new junior tenure line faculty at approximately the same point in their careers as those in the FDP. Requests to participate in the study were sent out to 79 faculty who had had participated in a one-day new faculty workshop on teaching, which had been held annually in the previous three years. As in the FDP, this workshop was voluntary and attracted faculty interested in improving their teaching. Of these 79 faculty, 29 originally agreed to participate. Of those 29, pre and post data were collected from 16 faculty in the control group. Four were from the sciences, medicine, and engineering, and 12 were from the social sciences and humanities. The control group did not receive funds or gifts for participating in the study.

**Instruments**

Faculty who participated in the program during the 4 years of the study and all control group faculty completed the Approaches to Teaching Inventory (ATI). The ATI is a standardized Likert scale inventory developed to provide a measure of faculty approach to teaching (Prosser & Trigwell, 1999; Trigwell & Prosser, 1996a). It consists of 16 items and is intended to capture variation in two conceptually discrete dimensions by way of two sub scales corresponding with the two main orientations described above: information transmission/teacher focused (IT) and conceptual change/student focused (CC). The 8 items in each of these approach scales are further divided into two sets of four items focused respectively on the instructor’s teaching intention and strategy.

All faculty members who completed the program also submitted a critical project report of actual teaching change implemented (or planned) for their course at the end of program. The project consisted of the redesign of an existing course, or the design of a new course or of a significant part of a new course that the participant taught during the year of the program or would be teaching during the next academic year. The report offered a reflective, critical account of the development and implementation (undertaken or planned) of the teaching innovation, with reference to the relevant teaching and learning literature. In the critical accounts, faculty members were asked to address the following areas: general description, learning outcomes, teaching activities, student assessment, and course evaluation methods/findings.

In addition, faculty members who participated in the third and fourth years of the program were interviewed at the end of the program. The interviews took a semi-structured format and were designed to elicit participants’ approaches to and conceptions of teaching and learning, and to discover whether those conceptions and approaches may have changed as a result of the program. The pre-program interviews also served to determine expectations about the program, while the post-program interviews were designed to gain feedback about the program’s overall effectiveness.

**Procedure**

**ATI.** The eight items on each scale were averaged to produce two subscale (CC and IT) scores. The pre- and post tests were analyzed for gains and/or losses on each subscale. Paired t-tests were carried out to determine if there were any statistically significant changes in conceptual and transmission scale scores during the course of the program. Independent t-tests were used to determine if there were statistically significant differences in CC and IT gains between FDP faculty and control faculty. All statistical analyses were performed with Statistical Package for the Social Sciences (SPSS) version 12 for Windows. Cohen’s d (standardized mean difference) effect sizes were also calculated (Cohen, 1988).

**Critical reports.** In each of the four years, FDP faculty worked on their projects over the course of the program. They were assigned to a project group with two or three other participants. Each group met three times with a program facilitator to discuss and critique each others’ projects. All 49 FDP participants submitted a critical project report at the completion of their participation, which were then analyzed for three specific categories of evidence: (a) evidence of student-centered teaching practice, (b) evidence of personal statements of change attributed to their participation in the FDP. Student-centered teaching was indicated when one or more of the following criteria was displayed: (a) when specific student-centered teaching words or phrases (e.g., student-centered learning, deep learning, engaging students, problem-based learning, interactive teaching) were present in the critical account with respect to their teaching intentions or strategies, (b) when a student-centered model was described in any section of the critical account (e.g., with respect to learning objectives, teaching methods, student assessment), or (c) when there was an emphasis on student learning over content or coverage in the narrative of the critical account. A change to student-centered teaching was indicated when one or more of the following criteria was met if (a) evidence of student-centered teaching was accompanied by a specific statement of change in teaching (e.g., “I changed”) or (b) evidence of student-centered teaching was accompanied by a before and
after statement (e.g., “I used to…but now I…”). A change to student-centered teaching attributable to the FDP was indicated if evidence of change was accompanied by a specific change statement mentioning participation in the FDP.

In the analysis of the critical reports, one of us read through all of the reports to isolate passages concerning the categories of evidence indicated above using the pre-determined criteria. Another researcher then independently reviewed the passages, checking for accuracy in the categorization of such passages. In this analysis of the critical reports, there were no cases of disagreement between the two researchers.

**Interviews.** In the third and fourth years of the program, we interviewed 25 FDP faculty members individually within a month after the program ended. The interviews usually lasted 40-50 minutes each, and were audio-taped and fully transcribed. We focused our analysis primarily on faculty reports of change to determine whether or not the data supported the evidence from the critical reports. We analyzed the interviews for evidence of (a) student-centered teaching, (b) a change towards student-centered teaching, and (c) a change towards student-centered teaching that could be attributed to participation in the FDP. As with analysis of the critical reports, student-centered teaching was indicated when one or more of the following criteria were displayed: (a) when participants used specific student-centered teaching words or phrases (e.g., student-centered learning, deep learning, engaging students, problem-based learning, interactive teaching) with respect to their teaching intentions or strategies, (b) when participants described a student-centered model of teaching when speaking about aspects of their own teaching, or (c) when participants emphasized student learning over content or coverage in their teaching. A change to student-centered teaching was indicated when one or more of the following criteria were met: (a) evidence of student-centered teaching was accompanied by a specific statement of change in teaching (e.g., “I changed”) or (b) evidence of student-centered teaching was accompanied by a before and after statement (e.g., “I used to… but now I…”). A change to student-centered teaching attributable to the FDP was indicated if (a) evidence of change was accompanied by a specific change statement mentioning participation in the FDP, or (b) evidence of change was accompanied by a specific change statement in direct response to the interviewer’s question about participation in the FDP.

To conduct this analysis, one of us read through all of the interview transcripts to isolate passages concerning student-centered teaching that met the pre-determined criteria. Two others examined the condensed transcripts to categorize the responses within the three general areas of evidence using the same criteria. The three of us, as a group, then compared our categorizations to achieve consensus. In cases of disagreement, we went back to the transcripts independently to re-examine the larger context of the statement to achieve resolution. Throughout the process, we reviewed the transcripts in their entirety to assure that quotations remained in context and appropriately fit their assigned categories.

**Results**

**ATI results.** Forty-six faculty members completed the FDP. Twenty-two were from the humanities/social sciences and 24 were from
science/medicine/engineering. Sixteen control faculty had complete pre- and post-program ATI data. Twelve were from humanities/social sciences and 4 were from science/medicine/engineering.

ATI data from the 4 years were aggregated into one data set. The mean pre-program CC subscale score for FDP faculty was 3.26 and the mean pre-program IT subscale score was 2.57. A paired t-test revealed a statistically significant mean increase on the conceptual change/student focused (CC) subscale of 0.31 points for FDP faculty (T_{45} = 2.92, p = 0.005; 95%CI 0.10-0.52). Mean information transmission/teacher focused (IT) scores for FDP faculty decreased by 0.24 points. This decrease was also statistically significant (T_{45} = 2.83, p = 0.007; 95%CI 0.07-0.41). (Figure 2). Effect sizes associated with these changes, 0.43 and 0.42, respectively, are considered moderate (Cohen, 1988).

In contrast, there were virtually no changes on CC and IT subscale scores for control faculty. Paired t-tests revealed a non-significant mean reduction of 0.04 points (T_{15} = 0.32, p = 0.754; 95%CI –0.21-0.28) on the CC subscale and a mean reduction on the IT subscale of 0.02 points (T_{15} = 0.0.154, p = 0.879). Mean information transmission/teacher focused (IT) scores for FDP faculty decreased by 0.24 points. This decrease was also statistically significant (T_{45} = 2.83, p = 0.007; 95%CI 0.07-0.41). (Figure 2). Effect sizes associated with these changes, 0.43 and 0.42, respectively, are considered moderate (Cohen, 1988).

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Critical reports. Critical reports ranged from one and a half to eleven pages in length (mean length 5.25 pages), not including appendices, syllabi, assignment descriptions, and course evaluations. To ensure that the analysis focused on evidence which the faculty had critically reported as important to their projects, the appendices were not included in document analyses other than to clarify meanings within the report. While faculty members were asked to provide a critical account of their projects in the report, they were not specifically asked to comment on changes in their own approach or refer to the role of the FDP. All data are drawn directly from reports. The three categories of evidence are intended to build an overall case. The first category does not specifically address changes in approach to teaching; it provides evidence of student-centered teaching activities. The second category provides evidence in terms of individual statements of change in teaching approaches towards student-centered approaches. The third category provides direct evidence of change which can be attributed to participation in the FDP.

Table 1 provides an overview of the evidence for change in teaching with respect to the three categories of evidence mentioned above. In all but five cases, faculty provided evidence of both student-centered practice and change towards student-centered practices, with some accounts providing a stronger description of such practice and change than others. In just over half the critical accounts, faculty also attributed at least part of the change they experienced to their participation in the program. These expressions of change were not directly solicited by the researchers. In the discussion that follows, examples of that evidence and what they mean are provided for each category.
**Student-Centered Teaching Practice**

Data from student-centered teaching practices were taken from faculty statements about various aspects of teaching, including learning objectives, teaching activities, and assessment methods. These activities share a common focus on student learning, particularly a concern with encouraging students to take a deeper approach to their learning in the course as opposed to a surface approach, as one history professor indicated:

> Indeed, my main goal as a teacher in this and every other course is to move the students beyond surface learning of the material toward a deeper, critical engagement with various themes and modes of argument.

Similarly, a political science professor wrote,

> Now my goal is to engage students and create a more dynamic environment for deeper learning…thus my focus now will be on critical thinking and problem-solving, rather than disseminating as much surface-learning material as I can.

This focus on encouraging deep student learning is evident from statements made about various teaching practices regarding descriptions of teaching activities and learning objectives respectively. An engineering professor reported how he encouraged his students to think critically and deeply about the course material by taking a student-centered approach in his teaching:

> I feel particularly strongly about using case studies because they enable students who are thoughtful and deep learners an opportunity to excel. Superficial and strategic learners would most likely focus on answering the questions on the assignment sheet, whereas deep learners may try different approaches and focus on the underlying problem and on providing a set of recommendations that are practical and substantiated with thorough analysis.

In another example, a professor of medicine described how he encouraged his students to think for themselves and to take ownership of their learning:

> As much as possible, I attempted to let them [my students] do all the talking. I also encouraged the other professors to do the same. As the course progressed, the dynamic did change from one of almost complete deference to one of almost complete independence!

Also, a chemistry professor expressed one of her teaching goals to make her course student-centered:

> One goal of this course is to make each area as interactive as possible so that specific student benefits would be realized and student intellect will increase.

**Change in Teaching Practice**

The statements describing faculty change in their understanding of teaching were expressed in a variety of ways. Some faculty reported the change directly in terms of changes in their conception of particular teaching practices, as one professor of Slavic literature wrote:

> One of the most welcome results of the conceptual changes underlying a new conception of myself as a facilitator…has been a new vision of the large lecture course. Instead of conceiving large lectures as something categorically different from small seminars, I now view both learning environments as situations suitable for active interaction between instructor and students and for small, peer-referenced learning as well as instructor-driven learning.

Another professor of linguistics discussed how he began to see the value in using a different teaching method:

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**Table 1**

<table>
<thead>
<tr>
<th>Faculty Statement of Change from Critical Teaching Accounts</th>
<th>Reports showing evidence of change:</th>
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<tbody>
<tr>
<td>Faculty Statements (From FDP Critical Reports: N=49)</td>
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<tr>
<td>Student-Centered Teaching Practice</td>
<td>49</td>
</tr>
<tr>
<td>Change to Student-Centered Teaching Practices</td>
<td>44</td>
</tr>
<tr>
<td>Change Attributed to Participation in the FDP</td>
<td>25</td>
</tr>
</tbody>
</table>
A second general lesson is that hands-on, problem-based methods are extremely effective in getting students to understand theoretical issues. I found that allowing them to manipulate and explore concrete instantiations of theories engages students much more than a simple lecture-style presentation of the same questions.

Other faculty members discussed change in approach in terms of a change to teaching which motivated students less through grades and more through strategies to engage them in thinking. An electrical and computer engineering professor reported how he had redesigned elements of his course in order to foster deep learning:

I chose to construct anew the laboratory assignments for (the course) with the goal of engaging students and converting them from grade centered (strategic learning) to concept centered (deep learning) students.

A computer science professor also sought to restructure his courses by emphasizing deeper student learning through his assessment scheme:

In trying to make students take responsibility for their learning, student presentations as well as class participation were made an important component of the grading scheme. Class discussions following these presentations helped teach students not to skim over the top of a topic like a jet skier, but to put [on] scuba diving equipment and go down to examine underlying causes and relationships.

Finally, other professors expressed their own fears and uncertainties in making such changes in their teaching practice. A professor of medicine stated,

This is a radically different undertaking for me. It does not reflect a regurgitation of anything that I have experienced or taught. In fact, I was never explicitly taught how to be an academic instructor, and it is a rather daunting task to design this project.

Change Attributed to Participation in the FDP

While participants were not asked to comment on change with respect to the FDP, many made statements indicating change in approach to teaching directly attributed to participation in the FDP. They focused on particular methods/activities of teaching and assessment as well as more general ways of thinking about teaching, as one literary scholar wrote:

First, I incorporated lessons learned from the (FDP) retreat and from a (FDP) workshop on lecturing by trying to create the occasion of the course itself as an especially timely one in the context of the contemporary world. Thus I attempted to activate the space of the lecture hall as an ‘event’ in its own right. I broke the invisible wall between lecturer and audience by engaging students from the audience—asking questions of the students and taking comments from them sometimes, summoning students to read passages from the texts in question other times.

According to a materials science professor, the FDP provided him with specific student focused teaching approaches that he could use in his courses:

Consequently small-group projects were assigned in place of home works. The (FDP workshop) on Improving Small Group Teaching provided many helpful suggestions for implementing a teaching method that is widely unused in the School of Engineering and Applied Science. In particular the workshop provided fair and educational means of evaluating group activities.

One chemical engineering professor described how the FDP enabled him to move beyond a coverage approach in his teaching:

Being an inexperienced teacher, I felt obliged to fall into the usual trap of ‘making sure certain material is covered in class’ [quotation marks added by professor]. This clashes strongly with what I believe teaching is all about and, unfortunately, with what I expressed to the students. Thus the most important lesson I learned through my participation in the [FDP] is that I can set ‘goals-in-which-I-believe’ for any course I teach.

Finally, another professor of medicine wrote about both the current and lasting impact the FDP has on her teaching:

As I hope is evidenced in this project, my participation in the (FDP) has helped me to better understand ways in which to engage students and has expanded my understanding of how one can assess their learning. I am happy to have had the opportunity to participate in the
program and am certain that my experiences here will continue to inform my teaching.

**Interviews**

In the interviews, 24 (of 25) faculty members indicated that they utilized student-centered activities in their teaching. In only one case did the transcripts fail to provide evidence that the faculty member utilized student-centered activities in their teaching. As in the critical reports, a student-centered teaching practice, whether expressed as a learning objective, teaching activity, or assessment method, was one that emphasized student learning and encouraged students to learn deeply. For example, one chemistry professor noted,

I think in terms of teaching styles, small group learning and really engaging the students to ask questions. And so [I plan on] actually incorporating a lot of small group activities to help them learn, in both my courses.

Table 2 provides an overview of faculty awareness of change with respect to student-centered activities in their teaching. Faculty participants were directly asked if their teaching changed as a result of their participation in the FDP. As such, we interpreted all the responses that reported change in teaching as evidence that the change could be attributed to the FDP, using the criteria described above in the methods section. There was, as mentioned earlier, no evidence of change in the case of only one faculty member. In describing these results, we make an important distinction between the clarity of the evidence from which the results are derived. The statements of 14 faculty provide strong evidence which clearly showed an awareness that they had changed their approach to student-centered teaching, and that the change could be attributed to participation in the FDP. Another 10 reported change as a result of participation in the FDP, but the awareness of change they described was less clearly articulated.

**Strong Articulation of Change**

It should be noted that the term strong, applied with respect to the 14 FDP participants, here refers to the evidence of change, not the extent or depth of that change. We considered a statement to provide strong evidence if it was characterized by a clarity of awareness of change on three dimensions: (a) change actually occurring, (b) that change being toward a student-centered approach, and (c) change being due, at least in part, to participation in the FDP.

Speaking of his own change in approach to teaching, a sociology professor explained that content and coverage were less important goals than encouraging his students to be deep, rather than strategic, learners:

Before I would tell the students they need to know this or that but now it’s more ‘no, you don’t need to know that.’ I am more selective on what material is important for the students to read. I get them to focus on the most important materials, get them to understand it. I focus more on deep learning more than absorbing all the material. I feel less pressure to cover all the material.

Even more emphatically, a chemistry professor strongly attributed a deeper approach to teaching, and his realization that he no longer needed to command his students by transmitting information, as a result of participation in the FDP:

Whereas, instead of being a strategic teacher I am more of a deep teacher. Instead [of] having a very strong personality being in command of the class and just giving out as much information as

<table>
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<tr>
<th>Table 2</th>
<th>Faculty Awareness of Change from Interviews</th>
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<tr>
<td>Awareness of Change (from Interviews)</td>
<td>Change (N=25)</td>
<td>No Change</td>
</tr>
<tr>
<td>Strong</td>
<td>Awareness of change clearly articulated on three dimensions: 1) change, 2) change to a student-centered practice, 3) change due to participation in the FDP</td>
<td>14</td>
</tr>
<tr>
<td>Weak</td>
<td>Awareness of change unclearly articulated on at least one of three dimensions: 1) change, 2) change to a student-centered practice, 3) change due to participation in the FDP</td>
<td>10</td>
</tr>
<tr>
<td>None</td>
<td>Awareness of change unclearly articulated on all three dimensions</td>
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possible. Now I am into higher levels of thinking in terms of how to present things, what’s best.

Another professor of medicine discussed how the FDP contributed to how she thought about students differently:

But I have been fairly frustrated with the students here at [the university] because I felt like I couldn’t just do that. I couldn’t just stand up and have them be engaged. And I think before the (FDP) I was perfectly happy to just blame the students. Like, oh, they’re disinterested students, they’re not good students. I don’t have to do anything different. When really if I go out of my way to engage them, then actually they are pretty good students. So that was a big shift for me.

This sentiment was echoed by a professor of political science who stated that

I did learn some major things from the teaching cannon like the different kinds of students, different kinds of learners that might be strategic, deep or surface. Active learning is the term you guys introduced at one point but I thought it related to me in designing this big lecture classes because it made me think a little bit more about how to get the students involved in the class rather than being passive.

Weak Articulation of Change

The articulation of change in teaching by 10 of the faculty participating in the FDP is described as weak. Once again, weak here refers to the clarity of the evidence of change, and not necessarily to the extent or depth of that change. We considered a statement to suggest weak evidence of change if its articulation was characterized by a lack of clarity of awareness on one or more of the three dimensions described above. This presented itself in one of the following ways: (a) the faculty member indicated change had occurred but did not say that the change was toward a student-centered approach, (b) the faculty member indicated the beginnings of awareness of change but did not say if the change had to do with a student-centered approach, (c) the participant was unsure whether the change was due only or primarily to FDP participation, (d) the statement of change was not well articulated, or (e) there was no substantial change as the faculty member already utilized a student-centered approach prior to participation in the program. For example, one civil and environmental engineering professor commented that she learned about how to utilize problem based learning more effectively from her involvement in the FDP, but since she already employed such student-centered teaching practices, we did not believe it could be said that she changed her teaching approach or practice, but rather reinforced already existing practice.

Another example of a weakly articulated expression of change can be seen in the words of a linguistics professor:

[My teaching’s] changing sort of unconsciously. I am still doing the same kinds of things: I didn’t really change the way I teach fundamentally…But hopefully some of the faults I had and the things I learned about how to present things, how to make sure students remain engaged.

In this case, we considered the remark to be weak because the faculty member seemed only generally aware that his teaching was changing, but he did not understand the nature of that change. We decided that his remark was an indication of weakly articulated change, since throughout the interview, he spoke about seeking to “engage” his students as he had not done before.

Another engineering faculty member attributed change in their teaching to participation in the FDP, but was unclear as to the nature of that change:

I learned that teaching is much more than tips and instead of getting a list of the ten best suggestions, I feel that the program focused on the learning process, the philosophy or science of learning…I have a better understanding of what it means to be a teacher and all these principles will stay with me for a long time.

We understood the engineering faculty member’s remark to be weak because she talked about having learned about teaching from her participation in the FDP, but she did not indicate whether she had changed her approach to student-centered teaching.

Discussion

Findings from the mixed method approach employed in this study suggest positive change in the approaches to teaching of junior faculty participants in the FDP. All three methods elicited evidence indicating that participating faculty changed towards more student-centered practices and conceptual change/student focused approaches to teaching. It also suggests that a significant part of that change could be attributed to their participation in the program. Together they provide substantive evidence for the addition of the supplementary, FDP intervention construct included in the extended learning and teaching model proposed in Figure 1 above. The results
primarily support the relationship between this construct and the approaches to teaching construct of the model. Additional evidence from the analysis of the interviews, suggesting more general changes in thinking about teaching, provide evidence of the relationship with the conceptions of teaching construct, but very preliminary. Similarly, textual analysis of the participants critical reports of the design of a particular course support the hypothesized relationship between the FDP intervention construct and the curriculum design construct, but only narrowly construed in terms of its relationship to the design of a particular course. We are not claiming the evidence supports the hypothesized relationship with curriculum design more widely construed as, for example, the organization of different subjects in a program.

In both the main CC and IT subscales of the Approaches to Teaching Inventory, the results were in the anticipated direction with healthy effect sizes. The results support the findings by Gibbs and Coffey (2004) in an international study of the efficacy of FDPs. We calculated effects sizes (Kline, 2004) for the Gibbs and Coffey study and compared them with effect sizes found in the present study. Effects sizes on both subscales were larger in the present study (0.45 vs. 0.12 on the IT subscale and 0.63 vs. 0.41 on the CC subscale).

FDP faculty changed on both the CC and IT subscales of the ATI, with changes in the anticipated direction and healthy effect sizes. In contrast, there was negligible change in control faculty. These results also support the findings by Gibbs and Coffey (2004) in an international study of the efficacy of FDPs. We calculated effects sizes (Kline, 2004) for the Gibbs and Coffey study and compared them with effect sizes found in the present study. The effect size was larger on the CC subscale in the present study (0.45 vs. 0.12) and virtually identical on the IT subscale (0.42 vs. 0.41).

Given the small sample size in the control group, potential biases in the way in which the two groups were selected and the divergence in the disciplinary profile between the two groups, we need to interpret these results cautiously. It is also worth mentioning that as with most, if not all instruments, development of the ATI has drawn some criticism, in particular from Meyer and Eley (2005) who point out several psychometric limitations in its development.

Analysis of critical reports, while limited to specific statements of evidence related to the design of one particular course, nevertheless, supports the ATI results with evidence of change implemented in, or planned for, actual course teaching. It should be noted, however, that while the findings from the study of the critical reports provide evidence for the development of student-centered intentions/strategies across the overall pool of participants in the FDP, it does not, at this point, provide substantive evidence of the extent and depth of that development across the key aspects or dimensions of the course and learning environment designed. There is no attempt, for example, to measure the depth and or breadth of the change by counting the number of statements in the reports, or interpreting them for depth and commitment. While the critical reports describe the design of a new course, or changes faculty made to an existing course, they were not specifically asked to assess the extent of change or its relationship to the FDP. Given the diversity of academic contexts, disciplines, student numbers and grade levels, such analyses were not felt to be appropriate. Similarly, there is no attempt to make internal comparisons about the extent of student-teaching practices versus more teacher-centered teaching practices which the reports also suggested. The focus of the analysis was on whether there was change, whether it was towards student-centered practice and whether it might be attributable to the FDP. Finally, it should be remembered that these critical reports are self reports and do not necessarily fully reflect what actually happened on the particular courses reported, or what subsequently occurred on the particular courses planned.

The analysis of the interview findings focused on specific statements of change related to student-centered approaches to teaching. In so far as the interview data were analyzed with respect to the same criteria as the critical reports, the findings support those reported from the critical reports. It should be noted, however, that the unit of analysis of the interviews was broader than the course focused unit of the critical reports. While the critical report focused on a particular course, the interviews were concerned with more general statements on change in the participants teaching practice or approach. These statements suggest that the change which they attribute to the FDP is more generally applicable to their understanding of teaching practice as a whole (e.g., “I have a better understanding of what it means to be a teacher”). It should be noted that a less than clear articulation of change does not mean there was no change or that the change itself was not substantial. The interviews provide very preliminary support for change beyond the particular course context.

Conclusion

At a time when teaching in higher education has come under increased pressures for accountability and pressure for improvement (Wilson, 2002), research evidence supporting the efficacy of initiatives and programs to improve teaching is increasingly important. In addition, it is critically important to embed that
research within empirically supported, theoretically sound frameworks relating teaching development in higher education to credible improvements in student learning outcomes. This study provides evidence for the potential of such programs to elicit changes in faculty approaches to their teaching within a framework which suggests that these changes can positively impact student learning. In so doing, it argues for a broader model of learning and teaching extending to and inclusive of the faculty development construct hypothesized at the beginning of this paper.

The recent growth of centers for the improvement of teaching and learning has resulted in a wide range of different programs and initiatives for faculty development. This general effort has, for the most part been working in a theoretical void, with little robust research evidence to support much of that work. The positive relationship between faculty development and student learning outcomes, which such programs have tacitly claimed, has rarely been meaningfully demonstrated, either theoretically and empirically. This study is intended as one of a number of projects beginning to remedy that gap and probe it further. The evidence for the potential of such programs raises additional questions about the nature of the encounter of faculty and program? In this respect, the authors are presently engaged in a range of empirical studies examining various aspects of that encounter, including (a) modes of faculty encounter, (b) the impact of the encounter with the program on student learning, (c) faculty experiences of academic learning which they bring to that encounter, and (d) the role of disciplinary mentors in that encounter.

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College Instructors’ Sense of Teaching and Collective Efficacy

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The purpose of this study was to provide an exploratory investigation of college-level instructors’ sense of teaching and collective efficacy. We investigated the relations of teacher- and collective-efficacy with a series of variables: experience, professional level, age, gender, academic domain (for teacher-efficacy only), and academic department (for collective-efficacy only) as well as the relationship between collective- and teacher-efficacy. Data from 117 graduate students, lecturers, and faculty were analyzed. Differences in teacher-efficacy were found with respect to gender and academic domain. Differences in collective-efficacy were not found across departments, experience levels, or professional levels. Teacher-efficacy was significantly correlated with collective-efficacy.

In a time when more and more students are coming to the university and concerns such as grade inflation, plagiarism, and academic dishonesty are becoming more salient, it seems pertinent that we begin to look at the motivations and beliefs of the professionals who guide the learning process at this level. Efficacy beliefs refer to judgments of one’s ability to perform actions required to achieve desired outcomes (Bandura, 1977, 1997). Two types of efficacy beliefs have been identified as integral to education; these are teacher-efficacy and collective-efficacy. Teacher-efficacy has been identified as a crucial construct in the research on teachers and teaching, whereas, collective-efficacy has only recently begun to receive attention with regard to its role in educational settings (see Goddard, 2000 for a review). However, very few studies have investigated the influence of teacher-efficacy in the population of college-level instructors (e.g., Heppner, 1992; Preito & Meyers, 1999; Young & Kline, 1996). Further, we found only one study that addressed the role of collective-efficacy with this population (Loup, Clarke, & Ellett, 1997).

Ideally, one of the purposes of higher education is to help learners in various fields to develop meaningful understandings about their domains of study and to facilitate the development of critical thinking within and among those domains. One expects that the role of teachers at the college level is distinct from the role of those who work with younger students in mandatory school settings. Still, we feel we can be guided by the research conducted with the traditional teaching population and find linkages to how this work may serve to improve education at the college level. Research at the elementary and secondary levels has demonstrated connections between teachers’ sense of efficacy and the choices they make, the teaching strategies they use, and the achievement of their students. If we extend these findings to the university level, one would expect that more efficacious professors will strive to challenge their students in a way that stretches their minds and makes them think about the world differently. However, in order to make these leaps, we must first gain an understanding of individual and collective beliefs of college level instructors. Once this information is gleaned we can then begin to determine how the construct of self-efficacy can be used to understand the teaching processes of these teachers.

To better understand the potential role of efficacy beliefs at the college level, it is important to review what we currently know about teacher- and collective-efficacy. Therefore, the sections that follow provide a brief overview of each construct. Following these overviews a review of the studies that have investigated efficacy beliefs among college level instructors will be given. Finally, the specific aspects and findings of the current study are explained.

Review of the Literature

Teacher-efficacy

Bandura (1993) presented the construct of self-efficacy as the beliefs one has about his or her ability to perform the actions required to achieve specific outcomes. Teacher-efficacy refers to “the teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context” (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 233). Pajares (1992) contended that "beliefs are the best indicators of the decisions individuals make throughout their lives" (p. 307). Thus, it follows that teachers’ beliefs about their teaching abilities may be an indicator of their future behavior, decisions, and classroom organization. In the teaching context, teacher-efficacy is expected to influence the goals teachers identify for the learning context as well as to guide the amounts of effort and persistence given to the task (Bandura, 1997; Tschannen-Moran, Woolfolk-Hoy, Hoy, 1998).

Researchers have investigated the differences in teacher-efficacy beliefs across experience or expertise levels. Much of this work has investigated the
differences between pre-service and practicing K-12 teachers’ levels of efficacy. There has been some confirmation of the claim that teacher-efficacy is highest among pre-service teachers and that this level of efficacy drops, often drastically, during the first year of teaching (Brousseau, Book, & Byers, 1988; Soodak & Podell, 1997). Soodak and Podell (1997) found that after the drop during the first year of teaching, there is a consistent increase in efficacy beliefs with experience. However, these beliefs never again reach the high, perhaps inflated, levels found in pre-service teachers. Soodak and Podell (1997) also found that these extreme highs and lows did not exist for secondary teachers. In fact, these researchers reported that secondary teachers were significantly more homogeneous in their efficacy beliefs and were less efficacious overall as compared to elementary teachers.

Collective-efficacy

Bandura (1997) defined collective-efficacy as “a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments” (p. 477). Similar to an individual’s sense of personal efficacy, the collective-efficacy beliefs of groups can affect their goal setting, motivation, effort, and persistence with challenging tasks or situations. Within the context of this study, one can consider an academic department to consist of instructors who work together, to some degree, in a collective environment to enhance academic capabilities of students. Instructors’ sense of collective-efficacy, therefore, might influence a department’s ability to overcome challenging situations, set appropriate goals for students, and work towards creating a positive environment in which students can reach their academic potential.

Recently researchers have begun to empirically explore the construct of collective-efficacy within schools, specifically among teachers (Bandura, 1993; Goddard, 2000; Goddard & Goddard, 2001; Goddard et al., 2000). This research has consistently shown collective-efficacy to be related to student achievement differences among K-12 schools in reading and mathematics (Bandura, 1993; Goddard, 2000; Goddard et al., 2000) as well as to varying levels of teachers’ individual sense of efficacy (Goddard & Goddard, 2001). Goddard and Goddard (2001) found that teachers’ personal sense of efficacy was higher in schools that were more collectively efficacious. Furthermore, Bandura (1993) found that characteristics of the student population (i.e., socioeconomic status, student turnover rates, and student absenteeism) were related to teachers’ sense of collective-efficacy. The overall findings of these studies illustrate the importance of this construct for explaining both school- and collective-efficacy to be related to student achievement, and effects on teachers’ desire to improve their teaching practice.

Review of Work Investigating Efficacy at the College Level

Few studies have examined teacher and collective-efficacy of college level instructors. Researchers have investigated the role of self-efficacy in improving university-level teaching (i.e., Heppner, 1992; Preito & Meyers, 1999; Young & Kline, 1996). One focus in this research has been on the training of Graduate Teaching Assistants (GTAs) and the influence formal training has on the development of their self-efficacy for teaching (Heppner, 1992; Preito & Meyers, 1999). Other work has investigated the role of teacher-efficacy in university teachers’ motivation to improve their teaching (Young & Kline, 1996). Results revealed that outcome expectancy and self-efficacy beliefs were related to motivation.

Researchers of self-efficacy in university faculty have provided descriptions of efficacy by gender (Brennan, Robison, & Shaughnessy, 1996; Landino & Owen, 1988; Schoen & Winocur, 1988); professional rank (Schoen & Winocur, 1988); and age, experience, and gender make-up of academic departments (Landino & Owen, 1988). These studies focused on academic efficacy, which is considered to be the individual’s belief in his or her abilities to carry out the tasks required for an academic position, namely research, teaching, and service (Landino & Owen, 1988; Schoen & Winocur, 1988). There seems to be some evidence that efficacy beliefs are related to gender; however, socialization processes, role expectations, and the age of the individual when entering the field may all have played a role for which gender served as a proxy variable. Teaching in the realm of higher education seems to be a role that is distinct from other aspects of an academic’s life. For instance, the work of Schoen and Winocur (1988) demonstrated that professional rank, gender, and experience were all related to individuals’ levels of academic self-efficacy, in which teaching is one component.

Loup and colleagues (1997) investigated teacher-and collective-efficacy beliefs among college level instructors. These researchers explored the dimensions of personal and collective-efficacy of K-12 teachers (n = 1041), college faculty (n = 799), and social workers (n = 812). Factor analytic procedures conducted on the K-12 teachers revealed factors for both teaching and collective-efficacy. However, for the higher education faculty these same procedures found evidence of a teaching-efficacy factor, but not a collective-efficacy factor. These authors concluded that university faculty work primarily autonomously and, therefore, do not
reveal the interdependence evident in K-12 teachers (Loup et al., 1997).

Current Study

The preceding studies serve as a backdrop for the current investigation. Our research provides an exploratory investigation into how current conceptualizations of the constructs of teacher- and collective-efficacy manifest in college-level instructors. Specifically, we sought to determine what, if any, relationship existed between college-level instructors’ sense of teacher-efficacy and prior teaching experience, professional level, academic domain, and a series of demographic variables, which included the sex, age, and ethnicity of the instructor.

Furthermore, we explored the role of collective-efficacy in a university setting, by investigating how collective-efficacy differed across academic departments as well as the relationship between perceptions of collective-efficacy and professional level of the instructor. Finally, we examined the relationship between teacher-efficacy and collective-efficacy of college-level instructors.

Method

Participants

The sample included 75 graduate students, 24 non-tenured faculty, and 18 tenured faculty members from a Research I university in the mid-Atlantic region of the United States. The graduate students were divided based on teaching experience: 24 graduate students with no college-level teaching experience and 51 graduate teaching assistants who were currently assisting a professor with a course or teaching their own class autonomously. Fifty-four of the participants were male and 63 were female. The ethnic backgrounds of participants in this study were identified as 79% Caucasian, 6% African American, 5% Asian, 1% Hispanic, and 9% Other.

Procedure

Questionnaires were administered using an online survey tool. An email notification requesting participation in the study was sent to every campus department secretary or department chair with the request that it be forwarded to each department’s faculty and graduate student body. The email participation request included a web link that participants could follow directly to the online survey. Answers were then submitted anonymously to an email address monitored by the authors. A second email request was sent out a month later to remind graduate students and faculty to complete the online survey. Email requests for participation were sent to 85 university departments, of which members from 28 departments responded.

Measures

Background information. Participants were asked to report demographic information regarding their sex, age, ethnicity, their highest degree held, and their position within the university (i.e., graduate student, graduate assistant, lecturer, assistant professor, associate professor, full professor). In addition, participants were asked a series of questions related to their teaching experience, such as how many semesters they had taught and additional teaching experience they had outside university teaching. Teaching experience beyond the university was assessed by requesting participants to identify whether they had ever engaged in a series of teaching or teaching related tasks. These tasks included elementary or secondary level teaching, tutoring experiences, church-related teaching, adult education, and other non-college teaching experience not listed. Thus, we used two indicators for teaching experience, the number of semesters teaching at the college level, and non-university teaching experiences. The latter of these was determined based on the number of teaching tasks reported from the above list, a maximum score for non-university teaching experience was 5 and a minimum score was zero.

Teacher-efficacy. The variable of teacher-efficacy was measured using a 19-item adaptation of an early version of the Ohio State Teacher-efficacy Scale (OSTES, Tschannen-Moran & Woolfolk Hoy, 2000), now referred to as the Teacher Sense of Efficacy Scale (TSES, Tschannen-Moran & Woolfolk Hoy, 2001). This measure is designed to assess efficacy for three aspects of teaching: student engagement, instructional practice, and classroom management (Tschannen-Moran & Woolfolk-Hoy, 2001).

Individual items from the TSES were slightly modified to better reflect the students and environment at the university level. Specifically, “schoolwork” was changed to “course work”; “school/classroom rules” was changed to “course policies,” and references to “class” or “classroom” were changed to “course.” Additionally, throughout the adapted measure we altered the references between “students” and “undergraduates.” Items pertaining to all three aspects of teaching (i.e., student engagement, instructional practice, and classroom management) were maintained in the adapted scale, since college level instructors encounter challenges in each of these domains of teaching. Specifically, undergraduate instructors often work to engage their students in and motivate their students toward course material, think about strategies
to best meet their instructional goals, and prevent troublesome and distracting behavior in the classroom (e.g., text messaging, student side conversations, argumentative students).

We employed principal components analysis with parallel analysis to determine the number of factors to extract. Parallel analysis is recommended as a method for determining the number of factors to extract in contrast to the Kaiser-Guttman rule (i.e., extracting factors with eigenvalues greater than one) which often suggests more factors than are theoretically meaningful (Horn, 1965; Thompson & Daniel, 1996). This analysis suggested that three factors should be extracted. Once the number of factors to be extracted was determined, principal component analysis with orthogonal rotation was performed on the data received in response to the TSES.

An initial examination of the factor matrix indicated that 13 items had loadings greater than or equal to .50. Hair, Anderson, Tatham, and Black (1998) recommended factor loading cut-offs at .55 for a sample of 100 and .50 for a sample of 120. Therefore, we used the .50 cutoff in this study. Hair, Anderson, Tatham, and Black (1998) also recommended the examination of communalities for unassigned variables (i.e., items). The communalities represent “the amount of variance accounted for by the factor solution for each variable” (p. 113). We implemented a .50 cut off for explained variance by the factor solution for each variable. Six items were found to not meet our expectations for factor assignment or explained variance (i.e., communality). Based on this finding, we chose to delete these items from our analysis (Hair et al., 1998; see Table 1 for deleted items). Subsequently, we conducted a second parallel analysis and principal components factor analysis with orthogonal rotation on the 13 viable items (see Table 1 factor loadings).

The three factors included Efficacy for Student Engagement (e.g., “How much can you do to get through to the most difficult undergraduate students?”), Efficacy for Instructional Practice (e.g., “How much can you do to adjust your lessons to the proper level for individual students?”), and Efficacy for Classroom Management (e.g., “How much can you do to get students to respect one another?”). These factors are consistent with results of previous factor analysis findings of data gathered with this instrument (Tschannen-Moran & Woolfolk Hoy, 2001).

Subscale scores were created for each of the three factors by computing an unweighted average of the responses to each of the items corresponding to that factor. An overall teacher-efficacy score was also computed using the same procedure for all 19 of the items on the TSES. For the present sample, alpha coefficients of reliability were .82 for the student engagement subscale, .77 for the instructional practice subscale, .61 for the classroom management subscale, and .88 for the overall teacher-efficacy scale (to calculate overall teacher efficacy we used all 19 items).

Collective-efficacy. Collective-efficacy was measured using the Collective-efficacy Scale (Goddard et al., 2000). This was a 21-item scale made up of four different types of items: (a) group competence/positive, (b) group competence/negative, (c) task analysis/positive, and (d) task analysis/negative.

### Table 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to get through to the most difficult undergraduate students?</td>
<td>.756, .096, .176</td>
</tr>
<tr>
<td>10. How much can you do to overcome a student's resistance to a particular topic?</td>
<td>.754, .049, .133</td>
</tr>
<tr>
<td>4. How much can you do to motivate students who show low interest in course work?</td>
<td>.745, .250, .081</td>
</tr>
<tr>
<td>12. How much can you do to improve the understanding of a student who is failing?</td>
<td>.669, .107, .036</td>
</tr>
<tr>
<td>9. To what extent can you influence the self-discipline of your students?</td>
<td>.661, .149, .252</td>
</tr>
<tr>
<td>15. How much can you use a variety of assessment strategies?</td>
<td>.086, .785, .190</td>
</tr>
<tr>
<td>17. How well can you implement alternative strategies in your classroom?</td>
<td>.471, .730, .025</td>
</tr>
<tr>
<td>16. To what extent can you vary teaching strategies to best communicate information to your students?</td>
<td>.494, .634, .015</td>
</tr>
<tr>
<td>6. How much can you do to ensure that your assessment strategies accurately evaluate student learning?</td>
<td>-.254, .606, .420</td>
</tr>
<tr>
<td>7. To what extent are you able to create lessons that hold students' interest?</td>
<td>.466, .532, -1.17</td>
</tr>
<tr>
<td>13. How much can you do to calm a student who is disruptive or noisy?</td>
<td>.302, .020, .800</td>
</tr>
<tr>
<td>3. How much can you do to control disruptive behavior in the classroom?</td>
<td>.148, -.041, .786</td>
</tr>
<tr>
<td>11. How much can you do to get students to follow course policies?</td>
<td>.033, .205, .501</td>
</tr>
</tbody>
</table>

Items deleted after first factor analysis:
2. How much can you do to repair student misconceptions?
5. How much can you do to get undergraduates to believe they can do well in course work?
8. How much can you gauge student comprehension of what you have taught?
14. How much can you do to adjust your lessons to the proper level for individual students?
18. How much can you do to get students to attend class regularly?
19. How much can you do to get students in your course to respect one another?
Directions for this scale were altered to emphasize the teaching of undergraduates and the collective as the department rather than school. Terms were altered in the instrument. “Teachers” was changed to “course instructors,” “student” or “students” were changed to “undergraduate students” and “undergraduates” respectively, and references to “this school” were changed to “this department.”

Goddard and colleagues (2000) assessed their scale and determined that that collective teacher-efficacy is a single construct, comprised of group competence and task analysis components. In the current study, we made the same theoretical and empirical conclusion to utilize a one-factor solution. Based on this decision, a collective-efficacy score was created by computing the unweighted average of responses to each of the 21 items. The alpha reliability coefficient for the current sample was .75.

Results

Relating Teacher-efficacy to Characteristics of College Level Instructors

Prior experience and professional level. We used correlational analysis to examine the relationship between teachers’ prior experience teaching at the college level (number of semesters), teacher non-university experience, and teacher efficacy, and no significant relations were found. We also examined the relation between teachers’ efficacy beliefs and their professional level. A series of ANOVAs was conducted to determine if graduate students, graduate teaching assistants, non-tenured faculty, and tenured faculty differed with regard to their efficacy beliefs. Interestingly, no significant differences were found. Upon further investigation, we discovered that our sample reported very similar efficacy beliefs on each of the three factors, regardless of their professional level (see Table 2 for a comparison of means).

Differences by academic domain. We were interested in understanding what, if any, relationship existed between an individual’s field of study and his or her level or teaching efficacy. Participants for this study came from eight separate colleges within the university. However, in order to obtain homogeneity of variance, we chose to analyze the data from the three colleges that had similar numbers of participants. Therefore, a series of ANOVA tests was conducted to compare the colleges of Behavioral and Social Sciences, Education, and Arts and Humanities. These tests revealed a significant difference between levels of efficacy for instructional practice for instructors from the college of Behavioral and Social Sciences (M = 5.31, SD = 1.11) and those from the college of Education (M = 6.21, SD = .89), F(2, 86) = 7.149, p = .001, eta² = .14 (the effect size, i.e., eta², of .14 can be interpreted as a large effect). Additionally, the mean overall efficacy score for Behavioral and Social Science instructors (M = 5.07, SD = .95) differed significantly from the overall efficacy score for Education instructors (M = 5.66, SD = .87), F(2, 86) = 4.264, p = .02, eta² = .09 (this can be interpreted as a medium effect).

Demographic variables. Analysis of variance procedures were used to investigate potential differences in teacher-efficacy along the demographic variables, of sex, age, and ethnicity. The results of these analyses demonstrated that males and females in this sample differ significantly in their levels of efficacy for student engagement (F(1, 116) = 8.085, p = .005, eta² = .07), and overall efficacy (F(1, 115) = 10.253, p = .002, eta² = .08), with females reporting higher levels of efficacy in each area (see Table 3 for a comparison of means). These findings suggest a medium effect for the study. Comparable findings with regard to efficacy for teaching were found by Brennan and colleagues (1996) who reported that female college instructors had higher levels of general teaching efficacy than males.

Similar analyses were employed on the data for ethnicity. However, there were no significant differences in levels of teacher-efficacy between ethnic groups. Pearson correlational analysis was performed to explore the relation between age and instructors’ efficacy beliefs. No statistically significant relations were found.

Collective-efficacy

The role of collective-efficacy was explored in relation to academic department and the professional level of the respondents. Analysis of variance tests were employed on the data from participants across the 28 academic departments included in the study. These tests found no significant differences between the collective-efficacy beliefs of these departments. Furthermore, these collective-efficacy beliefs did not differ significantly by the professional level of the instructors.

Collective and Teacher-efficacy

The relationship between collective and teacher-efficacy was explored through the use of correlational analyses. These treatments produced moderate, yet significant, positive correlations between teachers’ efficacy beliefs and their beliefs about collective-efficacy. Table 4 provides the Pearson r correlations of these relations as well as the r², the amount of variance explained by these relations, as an indicator of effect size. These correlations indicated significant relations among collective-efficacy and each of the
Table 2
Comparison of Means: Teacher-efficacy by Professional Level

<table>
<thead>
<tr>
<th>Level (n)</th>
<th>Efficacy for Student Engagement</th>
<th>Efficacy for Instructional Practices</th>
<th>Efficacy for Classroom Management</th>
<th>Overall Teacher-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>4.50 (1.22)</td>
<td>5.80 (1.07)</td>
<td>5.81 (1.38)</td>
<td>5.34 (0.99)</td>
</tr>
<tr>
<td>(24)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate TAs (51)</td>
<td>4.55 (1.09)</td>
<td>5.54 (1.17)</td>
<td>5.86 (1.05)</td>
<td>5.28 (0.80)</td>
</tr>
<tr>
<td>Non-Tenured Faculty</td>
<td>4.65 (1.56)</td>
<td>5.88 (1.13)</td>
<td>5.97 (1.18)</td>
<td>5.45 (1.05)</td>
</tr>
<tr>
<td>(24)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenured Faculty</td>
<td>4.18 (1.166)</td>
<td>5.60 (1.06)</td>
<td>6.03 (0.98)</td>
<td>5.15 (0.80)</td>
</tr>
<tr>
<td>(18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3
Comparison of Means: Teacher-efficacy by Sex

<table>
<thead>
<tr>
<th>Efficacy Factors</th>
<th>Male M(SD)</th>
<th>Female M(SD)</th>
<th>F</th>
<th>p</th>
<th>eta²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Engagement</td>
<td>4.16 (1.32)</td>
<td>4.79 (1.06)</td>
<td>8.085</td>
<td>.005</td>
<td>0.07</td>
</tr>
<tr>
<td>Instructional Practices</td>
<td>5.47 (1.15)</td>
<td>5.85 (1.08)</td>
<td>3.468</td>
<td>.065</td>
<td>na</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>5.80 (1.16)</td>
<td>5.99 (1.10)</td>
<td>.756</td>
<td>.386</td>
<td>na</td>
</tr>
<tr>
<td>Overall Teacher-efficacy</td>
<td>5.03 (0.94)</td>
<td>5.54 (0.78)</td>
<td>10.253</td>
<td>.002</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Table 4
Intercorrelations Between Teacher-efficacy and Collective-efficacy

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<thead>
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<th>1</th>
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<th>3</th>
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<tr>
<td>r</td>
<td>r²</td>
<td>r</td>
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n = 117

1. Efficacy for Student Engagement
2. Efficacy for Instructional Practices
3. Efficacy for Classroom Management
4. Overall Teacher-efficacy
5. Collective-efficacy

Note. * p < .05. ** p < .01.

Experience and Professional Level Differences in Teacher-efficacy

It is important to recognize that unlike studies of teacher-efficacy conducted with K-12 teachers, the participants in this study demonstrated no significant differences in teacher-efficacy across experience or professional levels. The non-teaching graduate students in this study have very similar teacher-efficacy beliefs as the tenured professors, with their efficacy scores falling mid-range on the nine-point scale. There are some possible reasons for this lack of variation.

First, as this was a completely voluntary process, it could be that those instructors and graduate students with lower levels of efficacy self-selected themselves out of the study. Second, the data analyzed here were gathered from graduate students and instructors at a large research university with very high research activity. In such institutions, teaching is often considered secondary to research. As such, it is not the key focus or goal to which the individuals surveyed are striving. The level and expectations for teaching in such institutions may make it acceptable for everyone to do “good enough” in their teaching, as they may see teaching as a secondary role for which such moderation is acceptable. Third, there is some concern with the
interpretation of items on the teacher-efficacy measure in light of the population surveyed. The TSES was created through the use of focus groups with practicing K-12 teachers for the assessment of teachers’ levels of efficacy. Consequently, the measure may contain language that is salient and clear to members of the teaching profession but may be unknown or unfamiliar to college instructors in disciplines untrained in pedagogy. That is, the educational cultures in these institutions may have lead to differences in item interpretation, thus masking some of the differences that exist within this sample of instructors.

Alternatively, the finding of similarity in teacher-efficacy beliefs across experience and professional level mirrors, to some degree, the results of Soodak and Podell (1997). Soodak and Podell found that secondary-level teachers were significantly more homogenous in their efficacy beliefs and reported significantly lower efficacy beliefs than elementary-level teachers. One could conclude that the university and high school environments are more similar to each other than to elementary school environments and as such, the development of efficacy beliefs among these teachers could be similar. Soodak and Podell offer possible reasons for this homogeneity at the secondary-level, which should be considered in light of the research presented here. One reason is that the two populations, elementary and secondary, are inherently different, and that individuals within these populations have distinctly different motivations for the selection of their profession (Soodak & Podell). We would suggest that university instructors are yet another distinct population of teachers with another set of distinct motivations for their career choice and reasons for teaching.

A second explanation for the differences in efficacy beliefs by school level offered by Soodak and Podell (1997) deals with differences in the organizational contexts of elementary and secondary schools. These researchers suggested that because secondary schools are organized by departments or teams, the teachers in these schools may experience “greater collegiality, support and professionalism” (p. 220). These higher levels of support may lead to a homogenous sense of efficacy as new teachers enter the school and are socialized within their departments. Universities are also organized by departments, and a sense of collegiality and professionalism are often key goals of the work environment. Thus, through this bond of collegiality, instructors at these levels may develop common expectations for teaching and the ability to teach. Alternatively, this commonality may be less due to collegiality and more due to socialization practices and a lack of pedagogical training. That is, instructors at the college level are “taught” to teach first as undergraduates and then are socialized into common teaching practices as graduate students. These common practices are then replicated in their own teaching and become the expected method of sharing information with future students. Because they are teaching within particular academic domains and are participating in learning within those domains, they may develop a common understanding of what teaching means in this context, which may in turn lead to a more common belief pattern in their abilities to fulfill this role.

**Differences in teacher-efficacy across academic domains and gender.** Significant differences in efficacy for instructional practices and overall teaching efficacy were found between participants from the colleges of Behavioral and Social Sciences and Education, with instructors from the College of Education reporting higher levels of efficacy. However, this does not seem particularly surprising, as we would expect that individuals, who have dedicated themselves to the study of education and teaching, would have higher levels of efficacy for teaching and perhaps a better understanding of what the teaching process entails.

The findings of this study replicated the trend that identifies women as having higher levels of efficacy for teaching (Brennan et al., 1996). One explanation of this continued trend could be in the understanding of the role of teacher in society and the socialization practices that allow for women to more closely align themselves with this work.

**Differences in collective-efficacy.** Our findings indicated no significant differences in collective-efficacy across departments or professional levels. In their assessment of college faculty collective-efficacy, Loup and colleagues (1997) were unable to discern a factor of collective-efficacy with their data. They suggested that the autonomous nature of academic life is such that the need for a sense of collective-efficacy is superfluous and not central to the goals of these professionals. Similarly, the work presented here suggests that, across departments assessed, the collective-efficacy is relatively the same with regard to teaching.

Also, we were curious to explore possible differences in collective-efficacy across professional levels, considering that tenured professors may have a different sense of the teaching community than graduate students or assistant professors. However, these non-significant results suggest that regardless of professional standing, the perception of collective-efficacy within the department is relatively cohesive, as one would hope it to be. The lack of significance with regard to collective-efficacy across professional levels provides evidence that the same degree of collective-efficacy is perceived among and between all members of the departmental communities represented here.

**Relationship between teacher-efficacy and collective-efficacy.** A significant positive relationship was found between participants’ reported levels of
teacher efficacy in all areas except classroom management and collective-efficacy, such that those participants with higher teacher-efficacy perceived themselves to be in departments with higher collective-efficacy. This finding is in concert with the results of Goddard and Goddard (2001) and suggests that these two belief systems can serve to guide in the establishment and maintenance of each other. Further, existence of a relationship between collective and teacher-efficacy provides two avenues for intervention in the improvement of college level instruction.

Limitations

There are a few key limitations to the work presented here that must be addressed. First, this study involved self-report data and participation was voluntary; therefore, the study is limited by the data collected from participants who were interested and willing to participate in the study and share their beliefs about teaching. Another key limitation of this study involves the lack of statistical analysis using hierarchical linear modeling (HLM). HLM would have allowed us to assess the complexity of our nested collective-efficacy and teacher-efficacy data. A final limitation involves the measurement of collective-efficacy for this population. Collective-efficacy was measured using individuals’ perceptions of their department’s collective teaching efficacy (i.e., the teaching ability of the department members). As discussed previously, teaching may not be seen as the most central function in the professional lives of these participants. Therefore, a measure of collective-efficacy that focuses on issues which these individuals must work on together (e.g., research, funding, hiring new faculty, and salaries), may provide a better assessment of the collective-efficacy that does exist among these individuals.

Implications and Future Research

At the onset of our investigation, we were concerned with teaching practices at the college level and sought to gain an understanding of the current efficacy beliefs among preservice and practicing college-level instructors. This introductory study identified some important aspects of college level pre-and practicing instructors’ efficacy beliefs that may influence their teaching practice. Our findings highlight implications and directions for future research with this population. Specifically, further examination of efficacy beliefs among college teachers in institutions representing varying expectations for research and teaching and the improvement of self-reflection in college-level instructors are both warranted. Thus, the findings of this study allowed us to identify several areas for future research.

In this study we focused on the pattern of beliefs among this population. The fact that very similar beliefs emerged across the groups investigated, perhaps tells us more about the role of teaching at the university level than it does about the individual teachers surveyed. The efficacy beliefs reported were neither overly high nor low across participants. In fact, individuals felt moderately confident in their ability to teach undergraduate students. Given the research orientation of the university assessed, one may consider that for this population, teaching is only of moderate importance and does not involve the high stakes associated with teachers in elementary schools. A next crucial step would be to conduct a similar study with a similar sample from a university or college that is known to have teaching as its primary focus. In such environments, there may exist greater variation in efficacy beliefs among the professional levels investigated, given the importance that teaching has in their professional lives.

Further, we feel that these beliefs provide a starting point for a conversation about teaching among this population. That everyone feels the same moderate level of ability to employ instructional practices, engage students in the learning process, and manage the classroom environment, suggests that these respondents may be unaware of teaching practices of other instructors and may lack the knowledge base needed to begin to have genuine reflection on their own practice. Further, beliefs play a central role in any change in action or knowledge (Pajares, 1992). If the ultimate goal is to improve teaching at this level, then it appears that, for these participants, the first step may be to help them recognize their own potential as teachers. Efficacy beliefs are future oriented. They reflect what an individual expects to be able to do. Elevated beliefs can cause individuals to extend beyond their own current abilities to reach a desired level of performance that they consider attainable. Thus, it may be necessary for this population of instructors to engage in discussions in which they can see that there are multiple methods for teaching and that they have the ability to engage in these practices.

Finally, we feel the results of this study speak to the uniqueness of teaching at higher levels of education. Teaching at the college level comes with a sense of autonomy and isolation different from that experienced at elementary or secondary levels. While Bandura (1977, 1997) would say that we judge our efficacy beliefs from our direct and vicarious experiences, the nature of the university makes formulating an internal judgment of one’s teaching capability extremely difficult. At the college level, instructors may read each
other’s research and compare curriculum vitae, but there are few, if any opportunities to make social comparisons about teaching practice that might serve as a source of efficacy beliefs for teachers. For the most part, feedback from teaching comes only from student evaluations, which may or may not inform an individual’s efficacy due to the types of questions asked, the number of students responding, and the nature of the students in that particular course. There are no standardized tests by which to measure teaching abilities and no school assemblies where you can compare the behavior of your students to those in other classes. A college instructor’s sense of efficacy for teaching may be based only on his or her practice in comparison with itself.

References


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Reflecting on How to Optimize Tertiary Student Learning Through the Use of Work Based Learning Within Inclusive Education Courses

Kathleen Tait
University of New England

Teaching and learning, as two of the most fundamental components of the educational process, have been of interest to a variety of individuals concerned with tertiary education for a long time (e.g., Biggs & Moore, 1993; Marton, 1997; Ramsden, 2003). Few individuals would deny that learning is the primary purpose of higher education and that teaching is the foremost means by which that goal is accomplished. Consequently, tertiary educators constantly seek opportunities to provide best practice in their university classrooms. As a profession, teaching at the tertiary level obviously draws upon a formal knowledge base. An important step in the translation of the formal knowledge base to enlightened practice is to draw upon tertiary students' experiential and informal knowledge. This paper discusses how a work based learning experience was utilized to enhance a post graduate course on collaborative consultation and team building methods.

It has been said, “Those who can do. Those who can't teach. And those who can't teach – research!” Nonetheless, an alternate view is that academics who teach well, do so because they research and reflect upon their teaching practice. Effective tertiary educators do this in an effort to ensure that their students learn how to apply a combination of research based procedures to the application of their knowledge of effective teaching and learning procedures. Thus, it could be said that those who research into their teaching teach best of all.

While this paper will relate the information to inclusive (or special) education in general, this is only one area of pedagogy where teaching and research skills are particularly sought and encouraged. Teaching and research have become an essential part of the teaching and learning process for children, youth, and adults with special support needs. The evaluation and teaching procedures that have been shown by research to be the most effective for people with special education needs have a strong basis in research procedures and reflective practices.

While they may be passionate about teaching at the tertiary level, this is not to say that all tertiary educators look forward to all aspects of the “job.” Given the parameters of end of semester time constraints and the many and varied expectations of an academic (i.e., teaching, research, administration, consultation, community service, and academic leadership), there are certainly aspects of an academic’s duties that can be considered to be less attractive than others. Sadly, quality learning is not always high on the agenda when administrative demands take precedent and time constraints are narrow.

Exploring University Teaching and Learning

The difficulties in defining learning have been attributed to attempts to consider the concept of learning as a single phenomenon: the acquisition of knowledge. As a result, researchers in the past have looked for common elements amongst learning activities (Saljo, 1988). The problem with viewing learning in this way has become apparent with the mounting realization that people's learning and remembering are crucially affected by what they already know (Siegler, 1983).

Tertiary students come to the university learning situation with previously constructed ideas, knowledge, or beliefs that help make sense of new information (Schallert, 1982). Students entering teacher education programs, in particular, generally have definite ideas about teaching and learning, although their ideas cannot always be articulated (Lortie, 1975; Zeichner & Liston, 1987). That is, student teachers begin with loosely formulated philosophies of education that personally explain what teachers do and how children learn in classrooms (Buchmann & Schwille, 1983). These perspectives serve as culturally based filters to help make sense of the program content, their roles as student teachers, their observations of classrooms at work, and their translation of program content into teaching/learning activities in classrooms (Hollingsworth, 1986; Nespor, 1985).

Beyond knowledge of the subject and pedagogy of teaching and managing students, university lecturers need to know how their adult students learn in classrooms. Namely, university lecturers must comprehensively understand both theories of knowledge acquisition and the social nature of learning in classrooms to define and clarify their roles as tertiary educators.

Conceptions of Learning

Current conceptions of learning are influenced by two major views. The first is a belief that learning is a
constructive rather than reproductive process. The learner does not merely record the material to be learned. Rather, the learner constructs his or her own mental representation of the material to be learned, selects information perceived to be relevant, and interprets this information on the basis of his or her existing knowledge and current needs, adding information not explicitly provided in order to make sense of the new material. Although the theme of constructivism runs through virtually all current discussions of learning, there is considerable variation in the philosophical and theoretical underpinnings of the various perspectives taken by individual investigators (Derry, 1992; Marshall, 1992).

The second major view is that learning is primarily a social, cultural, and interpersonal process that is influenced as much by social, emotional, and cultural factors as by cognitive ones. Once again, there are variations in the perspectives taken by different investigators, with some emphasizing social-psychological issues (Goodenow, 1992), whereas others emphasize the sociolinguistic and sociocultural issues (Collins & Green, 1992; Weinstein, 1991). This concern for the social context of learning clearly needs to be added to the suggestion that the meaningful learning of complex material (in contrast to the acquisition of isolated information, which in certain cases is still necessary) may be characterized as being active, constructive, cumulative, self-regulated, and goal oriented (Schell, 1986, 1988, 1992).

The learner-centered orientation inherent in modern views of learning has important implications for instruction at the tertiary level, including an increased emphasis on self-regulated learning (e.g., Zimmerman & Schunk, 1989) and studying (e.g., Thomas, 1988). However, for purposes of learning from instruction in the tertiary environment, emphasis needs to be placed on the instructional variables that influence learning (Shuell, 1992). Specifically, lecturers who wish to develop some self-knowledge of themselves as teachers will at some point need to undertake a critical reflective journey. Although, it has been raised by Brookfield (1999) that given the frenetic nature of academic life, frequently, such self reflection takes place in isolation.

Reflections on the Development of Ideas as a University Teacher

Inclusive education is fundamental to creating and sustaining life opportunities and personal fulfillment. Faculty staff members who teach undergraduate and post-graduate students studying the discipline of inclusive education have a responsibility to do all that they can to influence the inclusive education profession through their work. However, aspects of teaching children with special needs has not always been viewed as teacher work.

In the past, some have questioned the role of a teacher in special education (particularly students with the most severe disabilities) and described that role as little more than nurse-maid or child minder. Consequently, tertiary educators working in high support needs special education environments have their work cut out for them. Accordingly, it is very important to inspire tertiary students preparing to work in this highly specialized field, through enthusiastic and dynamic teaching. This is done in an effort to develop caring, reflective, and resourceful special education teachers who will value their role and aim to establish their presence in the rank and file of the teaching profession.

Reflecting on the Learning of Tertiary Students

Teacher educators have the privilege and responsibility to design learning opportunities and to model teaching practices for far reaching effects on the special education community. For example, pre-service teachers of the 1970s would have had an opportunity to have taken on the role of school principals, curriculum advisers, and/or special program coordinators. In which case, they would be considered to be educational leaders in their own right.

Such university graduates would be seen as key personnel for their schools and, as such, they would be in a position to lead innovation, to contribute dynamically to professional teams, and would be student centered, collaborative, informed, and effective. If tertiary educators have done their jobs well in the university classroom, then they are a part of that. For these reasons, the tertiary educator’s job carries with it a huge responsibility, not only to their tertiary students, but also, to their students’ students.

Whilst effective teaching, which can lead to enhanced learning for students with special needs, is amongst the most important work that a person can do, it rests upon recognition of the importance of sound educational theory and research based practice to inform this. According to Brookfield (1995), “Knowing something of how students experience learning helps to build convincing connections between what we want them to do and their own concerns and expectations” (p. 93). It is very important for tertiary educators to work hard to establish and develop relationships with students. Good learning is all about productive relationships.

It is fundamental to the tertiary educator’s role to foster the development of a vibrant and supportive learning community through their relationship with students. Students need to know that university lecturers care about them and their learning. This can be
evidenced through well-organized courses and materials; interesting, exciting, and fun activities for diverse learners; deep seated knowledge of the unit concepts; and flexibility to accommodate emergent student learning needs. If any one of these features is missing or is underdone, then the lack of care for students is obvious to them, and the learning must suffer.

Students need to come to know themselves as learners: their strengths and their preferred approaches and strategies for learning. Tertiary educators can be responsive to this by incorporating multiple learning pathways and multiple representations of concepts in course resources. In practice, this is done by building into tutorials a variety of different learning options for students including, but not limited to, pen and paper activities, loosely structured e-mail discussion forums, textbook resources, journal articles, face-to-face seminars, workshops, case studies, digital video and audio segments, and feature videos.

Tertiary educators should also consider constructing their courses in a way that will develop their students' critical thinking. This can be done by choosing texts and articles that challenge parochial views of schooling and educational issues. It is also advisable to encourage students to present at staff development workshops and post-graduate, national, and regional conferences.

University lecturers are able to make significant changes to the way in which their individual units are taught. To do this, it is very important to consistently use some form of student feedback to inform one’s teaching. These include university sponsored teaching and learning surveys, student discussion, and lecturers’ self-made surveys. Although, Brookfield (1999) has indicated that many university student evaluation indicators are frequently little more than satisfaction surveys (i.e., how much people like us). However, if one takes on board the students’ comments and evidences responsive teaching (i.e., starting with an understanding of the student and the concepts to be learned), then this is fundamental to making a positive difference in the way people conceive of themselves as learners. Responsive teaching is the way toward enabling students to feel a sense of ownership of their own learning paths, to understand the way to learn things best, and to engender a sense of pride in their learning achievements.

Work-based Approaches to Learning in Post-Graduate Courses

Pre-service educational degrees have traditionally included practice teaching placement components interspersed with full time university attendance. For many years, these experiences have been widely accepted within the domain of special education to provide student teachers with work based learning (WBL) opportunities. Basically, it is hoped that by pairing a pre-service teacher with an experienced teacher for a period of two to three weeks, the WBL will prepare student teachers for the world of work.

However, it is less likely that one will find post-graduate special education students attending part-time evening classes being exposed to similar WBL experiences. Clearly, there are logistical reasons for this. Post-graduate inclusive education students are often already involved in full- or part-time employment. Further, given their post service status, perhaps there is also the assumption that as post-graduate students studying education courses are frequently gainfully employed as teachers, further course related practical teaching experience is not required.

In a number of Master in Educational Studies awards, there are units which offer post-graduate education students the opportunity to learn the necessary higher order skills required to undertake a position as an educational advisor or consultant (e.g., management foundations and frameworks, advanced problem solving and team work, communication processes for school consultation, etc). The issue of concern here is that, unlike pre-service education students who engage in a series of teaching practicum placements as part of their course, post-graduate students studying how to be a special education consultant are rarely offered an opportunity to engage in the many complex challenges associated with being a consultant in a real school setting.

The course "The Consultative Process" is one of a strand of specialized subjects on offer as part of the Master of Education (Special Education) Degree at the University of Sydney, NSW, Australia. This unit of study is designed to facilitate the development of the knowledge and skills required by post-service special educators to take on a consultative role. Post-graduate students engaged in this subject are exposed to practice and procedure involved in the consultation process, but to date, this course does not have a practical work based learning component.

Thus, the opportunity to be engaged in a work based learning exercise via the role of workshop leaders for a disability awareness program at a local secondary school was overwhelmingly popular by these students (for a full account of the WBL project see Tait, 2006). Comments by post-graduate students when invited to help develop and implement the one day disability awareness workshop included the following:

- Yes! It will be a great opportunity to put coursework into practice.
- I think I will learn how to learn from others in this consultation program. Count me in!
• This is a great opportunity to see how the factors raised in class – (i.e., distance and time factors) will make collaboration a challenge to implement. Yes! Yes!
• This will be a great opportunity for these secondary students to learn empathy and begin to become aware of disability issues. I would be happy to be involved.
• This is a wonderful way of creating disability awareness among children from affluent backgrounds. Yes - because I am so passionate about this cause.
• This will be a great experience for the special needs students. By creating an awareness of different types of disabilities in the secondary students, we can hope that they are better accepted by society. I would love to be involved.
• Yes. I see this as a fantastic opportunity to develop a positive and inclusive learning atmosphere and to help create an inclusive society.

Setting the Scene of the Work-based Learning Experience

The aim of the one-day workshop was threefold. Firstly, the workshop was intended to promote positive attitudes towards people with disabilities through inviting speakers experienced in promoting inclusive education and speakers with disabilities to talk to the secondary school students (one of whom was a previous graduate of the host secondary school who had experienced a sport related injury resulting in paraplegia). Secondly, the workshop aimed to increase awareness of the impact of a disability through their active participation in 4 x 45 minute disability simulation workshop style exercises (specifically, hearing, vision, physical, and intellectual impairment). Thirdly, the workshop was designed to increase the secondary school students’ knowledge and understanding of people with disabilities and how to appropriately interact with students with severe disabilities through discussion and opportunity to ask informed questions of workshop leaders experienced in inclusive education in a supportive environment. At the conclusion of the workshop, all participants (post-graduate students/workshop leaders, secondary school staff, and students) were invited to comment on their experiences of the workshop anonymously via an open-ended evaluation questionnaire.

University Students’ Impressions of their Work-based Learning Experience

The Master of Education (Special Education) students were overwhelmingly positive about their work based learning experience and subsequently felt that due to this very positive exposure they felt confident to undertake a consultative role in similar situations. Below are comments from the post graduate students on their perception of the one day workshop as a work based learning opportunity for them.

I feel that the workshop was very successful. I absolutely enjoyed meeting new people, cooperating with others, learning new facts and working in a different environment. I know that for myself, I would have benefited from The Consultation Process (i.e., the University course) but I also think that as this was a “real” learning opportunity, it helped me to present a better workshop (for the GSS students) and ultimately a better experience for the students at the special school.

I thought the one day workshop was a wonderful opportunity for Master’s students to put into practice, and experience first hand, the skills required for effective consultation. The project also provided a vital link between the University and a reputable school. This further enhanced the school students’ understanding and appreciation of unique issues involving people with special needs.

With the preparation and collaboration that went into planning this workshop starting months prior, I felt confident in my ability to assume a consultant role and I would feel very comfortable presenting another similar workshop to other groups based on the experience at GSS.

Our lecturer was very well organized, prepared, knowledgeable, experienced, and cooperative. This guidance helped us all immensely. It was brilliant to be able to put theory into practice while I was studying and to have Dr. Tait on hand on the day of the workshop. The day had to be successful. With such supportive guidance it didn’t have any other choice.

Much of the University course material was actually used and acted out within this project so
it helped to illustrate exactly what we were simultaneously learning. I would definitely recommend that this be included in future courses at Uni.

Ramsden (2003) indicates that effective higher education should assist tertiary students to integrate formal and informal knowledge in theory and in classroom decision making. As can be seen from these tertiary students’ reports, it is very important for university lecturers to structure the experiences, knowledge base, and reflective activity of their students so that they have opportunities to build these schemata more effectively and more quickly.

Discussion

How to Assist with the Professional Development as a University Teacher

Strategy 1: Optimizing student learning and active participation. Arousing curiosity is absolutely central to engaging learners. Many tertiary educators have had significant success with the use of what is known as "authentic material." Authentic material includes a range of materials that might emerge within the professional and day-to-day experiences of students (e.g., audio and video resources, characterizing school staff room conversations, samples of student work, student reports, IEPs, newspaper and magazine articles, case study narratives, and guest speakers). These resources can be used to draw students into issues in an effort to spring board or launch them toward posing and researching their own questions.

These resources bring the concepts to life and provide a grounding for discussion and exploration of relevant research and literature. Enthusiasm for teaching is one of the fundamental requirements for student learning. If a productive relationship is to be established, then students must have no doubt about the enthusiasm of the teacher. It simply is not possible to foster student development and understanding without university lecturers communicating their own sense of excitement and enjoyment for the shared learning journey that they take with their students.

Tertiary teaching is exciting and creative work. No class, no student is the same and there are endless ways in which students can engage with concepts to be motivated and inspired. If tertiary educators are passionate about teaching, then they will keenly involve themselves in as many teaching and learning activities as possible. The result is that the excitement of the challenge will never fade. Each class that is lead and each unit that is designed is unique, and so teaching should never become passé.

Strategy 2: Assessment strategies that directly relate to unit of study outcomes. Ultimately, learning and assessment can be considered as being on two sides of the same coin. That is, in an effort to structure student learning appropriately, one must have in mind the intended outcomes, and this is framed by the assessment methods selected and the criteria that is outlined. High quality learning is absolutely dependent on high quality feedback. It is essential that students receive timely responses to and comments on their work, while their understandings are still fresh and they are more inclined to focus on mastery rather than simple performance goals.

Consequently, it is vital that students are given immediate written and verbal comments upon class presentations. Further, it is important to offer return comments on written assignments within two to three weeks of submission so that assessment is of maximum use to students’ development and understanding. Where possible, university lecturers should try to meet with weaker students to provide them personal feedback on written pieces of assessment. This is particularly so if it is felt that the student would benefit from supplementation to the written comments, or if a student appears to hold a misconception that might require support.

Conclusion

Teaching in a tertiary environment requires that academics continually monitor their approaches and develop rationales for their actions and practice. This is true of any university appointment, but an appointment in a Faculty of Education means that academics are on display as a teacher. Students expect to experience best practice in teaching, and they make no concessions for poor planning, design, organization, or presentation. These students do respect those who "practice what they preach.”

A commitment to quality teaching and learning includes a responsibility to voice and lead the development of quality practices beyond a university lecturer’s own subjects. The design of every teaching and learning sequence needs to be informed by a careful analysis of past student feedback, particularly with regard to the type of things that would motivate them as individuals and as a group to become engaged with the material. It is also important to ensure that students feel valued for their comments on one’s approach to teaching and learning. Finally, tertiary educators would do well to consider ways in which they can develop their students as independent thinkers rather than simply consumers and reactors.
References


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Teacher Perceptions of Critical Thinking Among Students and its Influence on Higher Education

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Phaik Kin Cheah  
Tunku Abdul Rahman College

The concept of critical thinking was featured in taxonomies a few decades ago. Critical thinking is a complex process that requires higher levels of cognitive skills in the processing of information. The teachers’ perceptions of critical thinking among students influence their behaviors in the classroom. It has been found that teachers perceive they are teaching critical thinking to their students and believe that critical thinking will provide the intellectual stimuli that will facilitate critical thinking. The evidence of critical thinking among students was perceived to be their ability to explain ideas and concepts in their own words. However, the ability to think logically and solve problems using new approaches paraphrase is not an indication of the students’ higher-level cognitive skills but the process the student undertakes to gain understanding of the material presented. Teachers did not seem to understand the requirements needed to cultivate critical thinking among students. Although teachers perceive that they are encouraging critical thinking in the classroom, they are merely focusing on the comprehension of the subject matter.

One of the ongoing debates in education research is whether students can learn to think critically through their own exploration or whether they need to be formally taught the skill as part of the curriculum. Sternberg and Williams (2002) noted that students may not need to be taught critical thinking as thinking is a natural process carried by everyone. But Duron, Limbach and Waugh (2006) argued that thinking is a natural process, but when left to itself, can often be biased, distorted, partial, uninformed and potentially prejudiced; excellence in thought must be cultivated. Black (2005) also found that students are able to improve their thinking skills if they were taught how to think. Furthermore, Nickerson (1994) noted that students need to be taught how to think more effectively, that is more critically, coherently, and creatively. For example, teachers could provide students with the criteria for judging information and taught the terms and strategies used for critical thinking (Black, 2005). Therefore, although students have a natural ability to think critically, it is important for teachers to guide them in order to refine their skills.

Critical thinking was first highlighted by Benjamin Bloom’s taxonomy a few decades ago (Duron, Limbach, & Waugh, 2006; Lauer, 2005). It was perceived that a higher level of cognitive ability involving critical thinking was a feature in the analysis, synthesis, and evaluation levels while lower levels of cognitive ability that is knowledge, comprehension, and application only involved remembering, relating and applying information respectively (Duron et al. 2006). Duron et al. described critical thinkers as those who are able to analyze and evaluate information. They noted that critical thinkers are those who are able to raise vital questions and problems, formulate them clearly, gather and assess relevant information, use abstract ideas, think open-mindedly, and communicate effectively with others. (p. 160)

However, Riddell (2007) noted that critical thinking should not be defined but explained by its components and features, stages, and characteristics as how critical thinking experts have done. The meaning of critical thinking can also be summarized from past researches as a reflection; identification and appraisal of assumptions; inquiry, interpretation and analysis; and reasoning and judgment; with the consideration of context. Therefore, critical thinking is a complex process that requires higher levels of cognitive skills in the processing of information.

The manner in which information is directed and conveyed to students may affect the students’ ability to think critically. Duron et al. (2006) pointed out that the lecture format of learning a popular approach in higher education may not encourage active learning of critical thinking on the part of students. For students to think critically and learn actively, teachers must give up the perception that students cannot learn unless a teacher covers it. However, many teachers still perceive that students need to be taught before they can learn (Choy, 2003). Teachers should also be flexible and show students that there is often more than one solution to a problem (Black, 2005). Therefore, it is important to consider the influence of teacher perceptions of how students learn.

Teacher Perceptions of Learning

According to Sainn and Ugwuegbu (1980), perception may be defined as “the process by which we extract meaningful information from physical stimulation. It is the way we interpret our sensations” (p. 90). Sainn et al. highlight three important points
about perception. Firstly, perception is not only dependent on the stimulus but is also determined by an individual’s experience, intention, and social needs. Secondly, the perceiver is not passive and indifferent when perceiving something but is actively selecting information and forming hypotheses in order to decide what is actually taking place. Thirdly, perception is a higher mental process which helps an individual build up a model of his or her world in order to help anticipate future happenings and deal with them appropriately. Therefore, the physical stimulation from sensory receptors of an individual give relatively limited information and cannot be interpreted unless there is additional information derived from past experiences and memory. Once the physical stimuli are appropriately interpreted, they will become the perceptions of an individual.

Many argue that the perceptions of teachers influence their behaviors in the classroom. Horwitz (1989), in her article about student perceptions and language learning, cautioned that it is important for teachers to consider how their students perceive them in the classroom as this can conflict with personal philosophies and attitudes towards teaching. She further stresses that “we (teachers) think of our classrooms as ‘communication-centred’ or ‘grammar-focused’, as dominated by ‘teacher talk’, while our students are more likely to think of their course as ‘hard’ or ‘easy’ and of their instructors as ‘strict’ or ‘lenient’” (p. 61). It appears that the view of teachers and students can be diametrically opposed. Teachers, for example, might be more oriented towards imparting the skills necessary for effectively learning, but students may be more interested in the grading practices of their teachers, due dates for assignments, and the number of assignments they need to complete for the course. A similar view is shared by Lauer (2005) who posits that teachers may not know how to incorporate critical thinking into their lessons. Teachers may find it a challenge to teach students critical thinking, as it is sometimes difficult to incorporate aspects of critical thinking into their lessons.

It must be noted that there is a difference between whether teachers perceive themselves as disseminators of information or a mediator of learning for an individual. As noted by Williams and Burden (1997), a mediator empowers an individual to learn by teaching the relevant skills and strategies to learn. There is also interaction between the learner and teacher and the learner is an active participant of the learning process. The learner is able to let the teacher know his or her perceptions and is willing to carry out the task presented. In contrast, if teachers perceive themselves as disseminators of information, there is little regard for student input and feedback. The teacher is solely in control of the teaching situation and meaningful learning by students is questionable. Therefore, whether a student is able to acquire critically thinking skills from such teacher would be questionable.

Present Study

Drawing on the concept that critical thinking is social in nature (Vaske, 2001), this type of thinking does not occur unless there is sharing and interacting with others; therefore, critical thinking requires reflection followed by communication with others. The current investigation focuses on teachers’ perception of critical thinking among their students and how this could influence the manner in which they teach and whether they are able to encourage this form of thinking among their students.

The main research questions underpinning this study were:

1. What are teacher’s perceptions of critical thinking?
2. What are their perceptions of students’ ability to think critically?
3. What are their perceptions of the role they have to play when incorporating critical thinking in their lessons?

The investigation was carried out using a qualitative approach, using a sample of lecturers from institutions of higher learning around Malaysia.

Method

The research questions led us to the interpretive approach. In this approach, the individual constructs personal meaning when they grapple with the environment around them to make it meaningful (Radnor, 2002), implying a need for an in-depth and insightful analysis of the data obtained. The aim is to view reality as being socially constructed where the behaviors of individuals are being continuously interpreted and reinterpreted to give a meaningful explanation to behaviors usually within a particular context (Holliday, 2002; Radnor, 2002) The meanings obtained in this manner are actually conceptualized, temporary knowledge (Greene, 2000). The responses were categorized according to themes interpreted from the data.

Design and Procedure

A questionnaire was used to generate data for this investigation. The 30 respondents were asked to answer a questionnaire with a total of 8 questions. The questions were focused on drawing out their perceptions on critical thinking. The questionnaire was semi-structured in nature so that it allowed the
Table 1
List of Questions on the Questionnaire on Teacher’s Perceptions of Critical Thinking

1. From your perspective, what is critical thinking?
2. What role, in your opinion, does critical thinking play in your classroom?
3. Do you think that critical thinking happens in your classroom when you are teaching your students? If so, how do you know?
4. How do you think you could bring about critical thinking among students? Specifically what are some things you do or could do to get your students to think critically?
5. What are the problems faced by students when you are trying to teach them critical thinking? If so identify them.
6. Do you think your lessons are enjoyable to students? Why and Why not?
7. Do you think you need to give all the information to your students in order for them to learn your subject? Why and Why not?
8. Do you think you would be able to implement critical thinking into your lessons if you were required to do so? Why and Why not?

Results

Analysis of the salient points of the data resulted in a total of 6 categories of teachers’ perception of critical thinking. These categories will be used to answer the three research questions (RQ).

RQ 1. What are Teachers’ Perceptions of Critical Thinking?

The results obtained from the analysis of two of the categories were used to answer RQ 1. The two categories used were the respondents’ perception of critical thinking from their definition of critical thinking and their perceptions of practicing critical thinking in the classroom.

Teachers’ definition of critical thinking. Most of the respondents, 25 out of 30, defined critical thinking as the intellectual stimuli which become the impetus to facilitate thinking among students in the classroom and enable students to enjoy the process of learning. They also described this as a process that involves analyzing information. For example, one respondent noted that critical thinking involves logical reasoning, compare and contrast. Not simply accepting the norm rather needing to reason and justify answers.

Critical thinking is a method or a way of thinking that maximizes the outcome or results. It also enables students to enjoy their studies and encourages them to produce satisfying results and analyze information.

Participants

The sample taken for this study is made up of teachers teaching in institutions of higher learning in Malaysia who volunteered to take part in the study during three teacher development workshops conducted by us. These teachers come from various disciplines. Because the study was grounded in the interpretive approach, total objectivity and neutrality in the data analysis process cannot be claimed. We approached teachers’ value-laden responses from our own understanding and definition of critical thinking. We acknowledge our own subjectivity, which we managed by respecting the worlds and sensitivities of the participants in the research context (Denzin & Lincoln, 1994; Holliday, 2002). Even though the results may only be relevant directly to a Malaysian population, they could provide information relevant to other populations in similar situations.
Critical thinking plays a significant role. The students analyze information and solve problems using critical thinking.

Discussion. The results indicate that the respondents had two ways of perceiving critical thinking. A majority of them perceived that critical thinking was a method of thinking that would help students enjoy the learning process. This implies that critical thinking can be a tool to stimulate students’ thinking and help them obtain better learning outcomes. The other respondents thought of critical thinking as involving reasoning which helped students analyze their learning. However, all the respondents did not indicate the depth of the learning that they wanted their students to attain. The results seem to imply that the respondents were more focused on students acquiring knowledge and learning to reason and analyze rather than reflecting and making appraisals of the material they learn. It is interesting to note that none of the respondents used words like reflection or appraisal in their definition of critical thinking, words which Riddell (2007) noted are important components of critical thinking apart from ability to analyze and reason. Although acquiring knowledge and learning to reason and evaluate is important, it should not surpass the need for higher level cognitive thinking, that is, critical thinking which encompasses analysis, synthesis, and evaluation as noted in Bloom’s definition of critical thinking (Dunn et al., 2006).

Teachers’ perceptions of practicing critical thinking in their classroom. All 30 of the respondents were certain that practicing critical thinking in their classrooms brings positive results. They also perceived that through critical thinking, students would be able to gain in-depth understanding of the subjects they were learning and apply what they have learned in real life. This process according to the respondents, maximizes the outcome of the students’ learning experience as they would be able to achieve better results in their courses and perform better in class as well as becoming proactive learners and independent thinkers. For example, one of the respondents commented,

I feel that critical thinking plays an important role in the learning process. If students are able to think critically, they will be able to perform better in class. A lot of students fail to perform well in their courses because they lack the understanding of how to apply the theories that they have learnt in the case studies. The lack of application skills, I believe comes from the fact that they do not think critically but mere memorizing.

Fifteen of the respondents added that students needed to be taught critical thinking in order to enhance their learning experience. For example, one of them noted the following:

I feel it is important for students to be taught critical thinking. However, a conducive environment must be created to help with this process. I think schools today do not have this type of environment today.

Therefore, all the respondents perceived that it was important that critical thinking occurred in the classroom. They also perceived that critical thinking needed to be taught in order to help students perform better in class. These findings support arguments by Duron et al. (2006), Black (2005), Choy (2003), and Nickerson (1994) that students need to be taught critical thinking in order to help them to think and learn better.

Discussion. From the results obtained, it would seem that most of the respondents perceived that critical thinking is an important component of the learning process. None of the respondents, however, gave a clear idea of critical thinking other than it involved analysis and reasoning. As noted by Ridell (2007) and Duron et al. (2006), critical thinking involves higher level thinking skills and involves complex processing of information. The respondents seem to focus on critical thinking as a tool for students to learn better so that they can better apply what they have learned to later life. None of the respondents mentioned that critical thinking involved higher order thinking like reflection and appraisals. All of the respondents perceived that it was important to have critical thinking occur in the classroom, although some were critical of the learning environments that did not support students in this type of learning.

RQ 2. What are Teachers’ Perceptions of Students’ Ability to Think Critically?

The results obtained from two categories: (a) teachers’ perceptions of students’ demonstration of critical thinking in their classroom and (b) their perceptions of the problem faced by students practicing critical thinking were used to answer RQ 2. Teachers’ perception of students’ demonstration of critical thinking in their classrooms. A total of 13 teachers perceive that their students do practice critical thinking in their classrooms some of the time. One respondent commented,

Personally, I know that a student is thinking critically if he or she is able to give sound and logical answers with substantial evidence and examples or conclusions that were not taken from the test or the teacher’s notes but from his/her prior
experience, knowledge or belief. The ability to link logical relationships between ideas also tells me that a student is thinking in a critical manner.

Ten of the respondents added that they knew that their students were practicing critical thinking when they were able to defend their arguments and problem solve using new approaches. They felt it was important for teachers to guide them and help mediate their learning. For example, one of the respondents wrote,

I know that critical thinking is happening when new facts, thoughts and ideas are discussed when the students present or defend their argument from a new point of view. They may also solve problems using different or new approaches.

On a similar note another respondent wrote,

The occurrence of critical thinking is reflected in the structure, organization and sequence of logic and steps shown in students’ solutions to a particular problem. Posing relevant questions could also be an instrument for identifying the existence of critical thinking.

Seven of the respondents also expressed almost similar perceptions as they explained that the content, line of thought and logical reasoning in the students’ work were the indicators of their practice of critical thinking. For example, one of them wrote,

The ability of my students to explain the content of what they have learned and their line of thought and how logical they seem to be are indicators of them practicing critical thinking.

Discussion. Most of the respondents perceived that students demonstrated critical thinking when they were able to perceive facts, thoughts and ideas from a new perspective and defend these ideas with sound argument. These students do not seem to reflect the skills that Riddell (2007) and Duron et al. (2006) argued are necessary to demonstrate critical thinking. According to these researchers, it is important to have skills like reflection, inquiry, interpretation, and analysis. Based on this research, the results of the analysis do not seem to show that these students had been able to acquire all the skills necessary for critical thinking, although their teachers perceive they are demonstrating this type of thinking. This would imply that the level of critical thinking demonstrated by students would be dependent on how well their teachers understand the necessary skills for this type of thinking. Black (2005) suggested that teachers themselves may not even know how to think critically and, therefore, their analysis of the level of critical thinking among students may be limited by their own ability of thinking critically. Added to this, teachers may confuse students by telling them that expressing facts they were given in their own words was critical thinking, a point emphasized by Williams and Burden (1997) in their research into learning.

According to Williams and Burden, many teachers do not make a distinction between whether they are disseminators of information or a mediator of learning for an individual. Disseminators of information are only interested in giving information to students while mediators of learning would be interested in helping students learn on their own. From the comments of the respondents, it would seem that they perceived that their students were able to think critically when they were able to rephrase what they had learned into their own words. These students may not know how to actually think critically as they would be equating rephrasing as thinking critically.

Teachers’ perception of the problems faced by students when required to practice critical thinking in the classroom. Twenty-eight respondents perceived that students lack the skills to practice critical thinking. The students are also unaware of critical thinking as a skill as they were never exposed to it or trained to do it in their early education. For instance, one of them explained,

Students are very passive as they were not taught how to think critically from young. It is difficult for them to discern what critical thinking is and applying critical thinking into the task at hand.

Another respondent expressed a similar perception with the comment:

I think students will have to be aware of critical thinking to start with. This is because the students were trained in schools to memorize the information, and not to ask questions. This has caused them to rely on their teachers to provide them with the information. Consequently, this stunts their ability to analyze.

Besides that, among the 28 respondents who felt that their students could not think critically, 14 respondents expressed their concern that the students have a passive behavior in the classroom. They also described their students as not having the language mastery of language or confidence to demonstrate critical thinking. They also felt that their students were too examination-oriented. For instance, one of them explained,
Students’ don’t like to open up as they are shy and inhibited. They would rather keep their opinions to themselves. Added to this they also lack language mastery, confidence to express new ideas and many of them are also overly examination oriented.

Another respondent shared the same view:

I have tried to encourage more guided group discussions so that they may be able to think more critically without accepting answers from me alone but the students do not seem to enjoy these discussions as much as I hoped. They keep quiet and do not participate. Sometimes I do see a few students thinking critically but they don’t seem to realize that and they get confused easily.

Discussion. It would seem that students were unaware that they needed to think critically as they were not exposed to this form of thinking and were often confused when they were encouraged to do so. The respondents perceived that the students were also not encouraged about the critical thinking process as they did not respond well when asked to think critically. This would suggest the importance of helping teachers understand the importance of incorporating critical thinking into their lessons consistently. This finding is supported by Lauer (2005), who noted that helping teachers teach students to think critically in the classroom can be a challenge. According to Lauer, techniques to teach critical thinking must be incorporated into the lessons so as to facilitate a smooth flow of the lesson at the same time teach critical thinking to students.

The finding that the respondents found their students passive and inhibited during discussion to enhance critical thinking could imply that students’ and teachers’ perceptions of the learning taking place in the classroom are very different. This supports the findings of Horwitz (1989), whereby the way teachers view their students would influence the learning that takes place in the classroom.

RQ 3. What Are Their Perceptions of the Role They Have to Play When Incorporating Critical Thinking in Their Lessons?

The results from two categories were used to answer RQ 3. The two categories are (a) teachers’ views about ways of encouraging critical thinking in their lessons and (b) teachers’ perception of the students’ enjoyment of their classes as a contributing factor to critical thinking.

Teachers’ views about ways of encouraging critical thinking in their lessons. All the respondents were certain that they could implement critical thinking in their classrooms by providing students with guidelines and prompts would give the students a chance to explore and learn to think critically on their own. They also felt that they needed to take on the role of a mediator by providing students with prompts, such as topics, keywords, etc., instead of notes could encourage them to practice critical thinking more effectively. For example, one respondent noted,

Instead, they could be given specific tasks to allow them to think creatively such as role-playing where students are required to solve problems using their own approaches. We could also conduct group discussions that require students to air their views and come up with solutions. They could also be given texts to read and then answer questions which require them to think out of the box.

Twenty respondents added that it was important to encourage students to be creative as creativity is essential in critical thinking that requires them to produce original ideas. They also suggested that students should also be given the preference to choose the topics they want to study as this would empower the students and, thus, promote critical thinking. It could also increase the students’ interest and in-depth understanding of the subject and create sense of responsibility towards their studies. For example, one of them wrote,

I feel it is important for me to encourage students to be creative in their thinking so that they can produce original ideas. However, I feel that this process could be enhanced if we could get students to choose the topics they like to learn and explore.

In addition, 17 respondents wrote that the learning environment in the classroom plays an important part in encouraging critical thinking among the students. To facilitate critical thinking in the classroom the respondents perceived that teachers play an important part in providing a conducive learning environment. For example one respondent wrote that

The teacher should also provide a conducive learning environment in the classroom to encourage the students to air their views and offer creative solutions.

However, 13 respondents felt that students expect lecturers to give notes containing all the information that the students need to know in order to answer the questions in their assessments. For example, one of the respondents wrote the following:
Students enrolled in private institutions of higher learning expect to be treated as customers who are buying education. Therefore, they expect the education provider to provide the information instead of having to find the information by themselves. As a result, this practice caused more difficulty for the teachers to cultivate critical thinking skills in the private institution.

In addition, 20 respondents expressed their observation that students in general lack proficiency in the English language to understand the texts and the basic skills to do research. Therefore, given the pressures of completing the syllabus by the relevant governing and licensing bodies, teachers often have to use the lecture approach, providing students with the information that is prescribed. This is because there is inadequate time for students to obtain the information on their own. This they perceived prevented them from encouraging critical thinking among their students, as one respondent noted:

As much as I am reluctant to provide students with the full set of notes, I still do it. The reason for this is that I am pressured to cover the syllabus which was approved by the National Accreditation Board. Therefore, there is just not enough time to conduct classroom activities to encourage critical thinking.

Another strongly respondent who held similar views explained:

I strongly feel that students cannot be spoon-fed with information. However, due to the demanding request from the students, their slow pace of learning and lack of time (especially in grasping concepts), I provide them with lecture notes to addition the textbook. Another reason is that the students do not understand what they read in the textbook due to their low proficiency in the English language. Therefore, they are unable to decipher what they read in the textbook.

Fifteen of the respondents further expressed concern that teachers themselves may not have mastered critical thinking causing the students to not develop this form of thinking well. For example, one of them stated,

I know it is important to help students think critically but I wonder if it really happens. I do not know if it really takes place because the teachers themselves may not be able to think critically. You cannot have someone who does not know how to think critically to teach critical thinking.

**Discussion.** This finding suggests that respondents are certain they could implement critical thinking in their classroom. Many of them suggested students could be empowered to choose what they wanted to learn and encouraged to problem solve using their own approaches. However, this certainty that they could implement critical thinking in their classroom seemed to be checked by the respondents’ perception that students were on the whole dependent on their teachers to provide them with all the relevant study materials. Their lack of ability to understand the required reading materials is perceived by teachers as deterrents to helping students develop critical thinking skills. Added to this the respondents were also unsure that teachers could think critically themselves. These perceptions could also be a result of the way they perceived their students and themselves. These respondents may actually be disseminator information rather than mediators. They may not know how to stimulate their students to think critically because they may not actually know how to think critically themselves. This finding supports research by Williams and Burden (1997) that the way in which teachers manage their classroom environments influences the way in they interact with students and the way they learn. Furthermore, the confidence of a teacher and their self-efficacy and self-esteem could influence the way they influence their students’ thinking.

*Teachers’ perception of the students’ enjoyment of their classes as a contributing factor to critical thinking.** Twenty-seven of the respondents expressed certainty that their lessons were enjoyable to students. These respondents also noted that their students practiced critical thinking in the classroom. For instance, one respondent wrote,

My students enjoy my classes. This could be assessed from the responsiveness and enthusiasm of the learners.

All of the respondents were sure that their lessons were enjoyable cited the feedback forms which students filled-in at the end of the term as evidence to support their claim. In addition, they also felt that their own enjoyment in teaching their classes was a factor in ensuring that the students enjoyed the lessons. For instance, one of them noted,

My students enjoy my lessons most of the time. I also enjoy teaching them. Their evaluation of me through the feedback questionnaires at the end of the semester is very encouraging.

Besides that, 15 respondents believed that providing students with explanations to which the students could relate was important to make their lessons enjoyable. They perceived that this contributed to students’ critical thinking during classes. Additionally, the respondents
believed that the students’ enjoyment of their lessons were dependent on various aspects like their understanding and connection with the material presented, their interest in the content of the lesson, and whether they were prepared to learn the lesson. For example, one respondent explained,

If students came prepared for the lesson by doing prior reading, they would find it enjoyable. They would be more apt to want to think critically especially when they understand the lesson. The content of the lesson was also important as students would find more enjoyment in a subject that is of interest to them.

Discussion. This finding seems to suggest that most teachers perceive that their lessons were enjoyable to students. They also felt that their own enjoyment of the classes they teach was also a good indicator. In addition, the students’ own preparations for the material to be learned would contribute to their ability to think critically. It is important to take into consideration the arguments of Horwitz (1989) that a teacher’s perceptions were not shared by their students. Their students may actually be looking at the same situation from vastly different perspectives. However, the results do not seem to support Horowitz’s argument. These students seem to enjoy their class as evidenced from the comments from the students’ feedback questionnaire.

Conclusion

The results show that teachers perceive they are teaching critical thinking to their students. They believe that critical thinking will provide the intellectual stimuli that will facilitate learning among students. They perceive that students’ ability to explain concepts in their own words is evidence that they were thinking critically. However, this perception is questionable because thinking logically and being able to problem solve using new approaches may not be indicative of critical thinking but may just be the process the student undertakes to gain understanding of the material presented. As Black (2005) aptly noted, critical thinking requires students to take their own thinking apart: to analyze their own thinking according to standards of clarity, accuracy, relevance, logic, and fairness. This seems to imply that teachers themselves may not have a strong understanding of critical thinking and how to encourage students to think in this way. This lack of understanding of the concept is also reflected in their definition of critical thinking. Many of them equate critical thinking to intellectual stimuli, but they are unable to define the forms these stimuli must take. Vaske (2001) noted that the definition of critical thinking needs to encompass both the natural qualities of a person – disposition - and the critical thinking skills of the person. This would imply that critical thinking can only be taught by teachers who have in-depth knowledge of critical thinking skills and understanding of how to incorporate this into their lessons so that it is easier for students to adapt to this type of thinking.

The findings also suggest that teachers are not confident that their students could learn to think critically on their own. Many of them perceive their students to be unwilling to share and lack the command of language to express their thoughts well. Black (2005) suggested that a climate of high expectations and teacher warmth that encouraged students to express their thoughts needed to be present to ensure success of critical thinking in the classroom. The tendency for teachers to provide the necessary materials and the need to complete their syllabi was indicative that they were not able to incorporate critical thinking into their lessons all the time. Many teachers also perceive that their students do not enjoy classes when discussions required them to think critically. The teachers also seem to be in conflict with wanting to stimulate critical thinking in their students and needing to complete the stipulated requirements of the course. This is a dilemma because the relevant governing and licensing bodies of these institutions may not be aware of the needs and the time constraints imposed on teachers. Duron et al. (2006) noted that although content delivery is very important in higher education, it often does not encourage active learning of critical thinking among students. This tendency for teachers to provide all necessary learning materials and the need to complete syllabuses would imply a very structured approach to teaching.

The results would imply a need to improve the understanding of the concept of critical thinking among teachers to enable them to effectively teach student to think in this manner. There also seem to be a lack of understanding of the requirements needed to help students think critically. Many teachers may think they are helping students think critically, but they could be focusing on their comprehension of the subject matter instead. It would also be important for teachers to give consideration to their current instructional methods and their personal beliefs before attempting to incorporate critical thinking in their lessons. Critical thinking is a learning process that needs to be constantly practiced and incorporated into daily lessons. With the current constraints and requirements of the teachers, the success of this process is questionable. Further studies need to be carried out on how teachers perceive meeting expected requirements and time constraints could be hindering them from effectively incorporating critical thinking into their lessons.
References


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Involving Adult Service Users with Learning Disabilities in the Training of Speech and Language Therapy Students

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This article describes a pilot project carried out at City University London, Department of Language and Communication Science, where adult service users with learning disabilities trained first-year speech and language therapy students. The training involved presentations by the service users on their involvement in interviewing support staff, work experience, and daily routines. All service users employed their preferred communication mode when presenting. The purpose of this project was to evaluate the students’ perceptions of the benefits of the training for them as future practitioners as well as developing their own disability awareness. Twenty-four students took part in the training, and 13 students completed an evaluation questionnaire. The feedback from students was generally positive with a range of comments around how they valued the experience in terms of developing knowledge and insight as well as challenging their own perceptions of disability. In addition, service users were asked to evaluate their own achievements in relation to the experience of teaching students.

Using service users, patients, and clients as teachers has been described as highly advantageous for student learning within the field of nursing (Costello & Horne, 2001). In addition, evaluations of such innovations in teaching have revealed dual benefits not just for the students, but for the service users themselves (Basset, 1999; Beresford, 1994; Glazier & May, 1995; Hanson & Mitchell, 2001; Rudman, 1996; Wood & Wilson-Barnett, 1999). Service users feel that they are experts regarding their needs, or their conditions, and feel strongly that they are giving something back to students and helping them to develop into effective practitioners. This paper explores the use of adult service users in the training of speech and language therapy students and the impact on the students’ learning in relation to disability awareness and recognition of the diversity of communication styles used by this group. The main focus of this paper is on a questionnaire about the service user training received with discussion of the results and consideration for enhancing student learning further through this approach.

Involving Service Users in Training Practitioners

Patients, clients, and service users have been used in a variety of ways to teach students. Methods include using patients/service users as advisors, gaining patient/service user views on what should be taught, evaluating what learning materials should be included, and providing actual face-to-face class teaching. Harrison and Beresford (1994) used a conference format to consult a range of user groups as a way of informing social work training. Participants felt that if students had access to service users, then a positive perception of service users would develop as well as increasing student knowledge. Ingham (2001) and Sawley (2002) approached patient and voluntary service user groups to reflect on how the curriculum could be enhanced by user involvement. An important element to surface was that parents valued support and services more if rationales were explained clearly to them, and that information such as this would be useful for sharing with students as part of their teaching.

Within the field of mental health, service users have been approached on what specifically should be included in the curriculum (Forrest, Risk, Masters & Brown, 2000; Rudman, 1996). Rudman (1996) collected data from 20 mental health service users using a semi-structured interview forum. Service users reported that they felt that important clinical skills for nurses should include realising that an individual approach is needed, with an understanding of key issues rather than labelling behavior. In addition, participants felt that it was important for students to be aware of the importance of being aware of local resources and supports and the high level of relevance this had for service users. Forrest et al. (2000) had 5 focus groups involving 34 service users. A key theme that arose from these groups was that nursing courses did not cover clearly the specific clinical qualities important for clients.

Service users as teachers within the curriculum have been reported in a variety of studies where positive outcomes have been described. Stacy and Spencer (1992) interviewed 20 patients involved in a community medical project where over a 6 month period medical students visited patients. The students reported that they felt they learned to not treat the patient as a passive individual, but as an equal participant in the process. Coleman and Murray (2002) carried out a similar study and focused on patient views where they commented on how they had gained self-esteem and personal growth from participating in such a
project as well as gained more information about their illnesses. Rowley (1995), Soliman and Butterworth (1998), Costello and Horne (2001), and Wood and Wilson-Barrett (1999) all write about using patients/service users to actually “teach” students within a class-based forum. All of these studies comment on the value of how students changed their perspective of a patient’s needs, as well as how their reflective practice skills and insights into working with other people who are likely to be clients were developed. The Wood and Wilson-Barrett (1999) study raises the issue of service users feeling challenged when practitioners use terminology and jargon as well as the value of taking an individualised approach. Costello and Horne (2001) also raised similar points where students gained benefit from service user teaching mainly in the areas of developing a greater understanding of key issues, developing an empathy with the client, and reflecting on the wider issues relevant to the client and the impact of their condition on their lifestyle. In summary, service user/patient/client teaching is considered as being a valuable addition to the curriculum for health care and social work practitioners.

Benefits of Participating in Training for Adult Service Users

In addition to the student learning benefits, service users have reported increased self-esteem as reported previously. However, the studies mentioned in the first section have focused on specific groups, learning disability not being one of these. This is despite there being many reported benefits for adults with learning disabilities when they are involved in training their peers. These benefits include the development of confidence with communication use (Hooper & Bowler, 1991; Osguthorpe & Custer, 1993; Raglan, Kerr, & Strain, 1978). Some studies have examined this concept, in particular, the use of more able peers with learning disabilities teaching, training, and supporting their less able peers. Makaton peer tutoring was initiated in 1996 (Hooper & Bowler 1991) as a pilot project. Eight adults with moderate learning disabilities were taught to develop strategies to support and enhance the communication attempts of less able peers. The main focus of the training focused on developing functional use of signing with support in everyday settings. The results indicated an increased use in vocabulary size and signed/spoken interaction attempts with the tutors. Hooper and Walker (2002) carried out an evaluation of Makaton peer tutoring through use of a detailed questionnaire sent to twenty-three establishments in England and Wales. Feedback indicated that the Makaton peer tutors developed an increase in self-confidence and self-esteem, and that their own communication skills improved. Managers and facilitators also reported that the Makaton “tutees” who had received the support from the peer tutors developed increased attempts to make choices, improved attempts to make their needs known, and “more general enjoyment and interaction in communication sessions” (p. 40).

Ragland, Kerr, and Strain (1978) also explored the concept of using one able student to facilitate communication attempts with three less able peers. The intervention involved children with difficulties within the autistic spectrum, all of whom were classified as having low functioning autism and who were aged between 8 and 9. The peer trainer was aged 10 and was described as having milder features of autism. He was instructed to try to engage the other children in the playroom where the intervention took place. Findings from this study indicated that there were increased positive social initiations and social behavior noted with all the participants. The authors suggest that, with very careful instruction and precise programming, non-learning disabled, or those with lesser levels of disability, can be used in training programs to increase social opportunities for their less able and more socially withdrawn peers.

Michael Brady and colleagues (1984) examined the effects of training an adolescent with autism and a learning disability to develop his social communication by training non-disabled peers to use modelling and specific prompting and scaffolding techniques. The results of the study clearly indicated that the subject’s rate of unprompted initiations to his peers increased after the program had been instigated. Significant increases in the number of initiations and interaction attempts were noted. This is a study that highlights the significant benefits of developing appropriate communication strategies to enhance the potential of those with learning disabilities.

However, there are some studies that have examined the use of people with learning disabilities in the training of their non-disabled peers. Osguthorpe and Custer (1993) recognized that there was a paucity of studies undertaken to demonstrate the effectiveness of using students with disabilities as tutors. They focused on using 15 students with learning disabilities who had moderate learning needs and who they described as being in the fifth and sixth grade at school to train 15 non-learning disabled students from the same grade to use sign language. They also completed pre- and post-interaction observations on the students with learning disabilities during social settings such as the lunch hour. Outcomes from this study indicated that the students with learning disabilities developed what the authors describe as “a superior social advantage” as well as confidence in their communication skills. Additionally, the non-disabled peers developed a
respect, admiration, and an increased awareness of disability that they had not experienced before.

**Summary**

In conclusion, the literature appears to highlight strengths in projects that use service users in teaching, not just for the students themselves, but for the service users. Given the positive outcomes reported in these studies, it was decided to set up a pilot project at City University, London using adult service users with learning disabilities to teach speech and language therapy students about aspects of their lives important to them using a multi-modal communication approach.

**Method**

**Participants**

The participants involved in this study consisted of 24 students who were first years in a four-year Speech and Language Therapy degree course. The training was provided by a group of 6 adult service users from a Central London Partnership. The main training lectures provided by the service users included the following:

- Four service users employed a range of communication including speech, Makaton signs, symbols, and gesture to facilitate themselves and their peers and gave a training session on involving service users on interviewing staff to be key workers.
- One service user used Makaton, speech, and symbols to provide training to the students on his work experience.
- One service user who was non-verbal gave a video training presentation in collaboration with his support worker on the important aspects of his daily routine.

Prior to the training session, students received a session on the range of communication needs expected, and a brainstorming session to explore the types of questions that could be considered as appropriate for the service users. Additionally, levels of language complexity and supports such as natural gesture and Makaton signs were discussed. Students received a practical Makaton sign session to help facilitate their skills in this area. Students were also requested to fill in a questionnaire post the training session. Service users were also spoken to informally about their experiences post the event.

**Results**

Questionnaires were completed by 13 of the 24 participants. Results of Questions 1 and 2 – “What training have you had from adults with learning disabilities prior to this day”, and “What experiences have you had of working with adults with learning disabilities prior to this day?” – revealed that no students had any prior experience receiving training from adults with learning disabilities or experience of working with adults with learning disabilities.

Question 3 asked, “I have been helped to view the communications needs of this group differently today,” using a 5 point scale from Strongly Agree to Strongly Disagree. Of the 13 responses, 7 students responded Strongly Agree and 6 students responded Agree. All students agreed that their perceptions of adults with learning disabilities communication needs had been challenged. The service users were a clinical group that the students had not considered prior to coming onto the course. This is surprising given that one of the prerequisite requirements of the course indicates that potential speech and language therapy applicants should have had some clinical experience with people who have communication disabilities before coming for their interview. Many students had had experience of children with learning disabilities but not adults.

In addition, Question 4 stated, “I feel more confident about interacting with this group of service users,” with a rating scale from Strongly Agree to Strongly Disagree. Five students either answered Agreed or Strongly Agreed, while 4 students answered either Disagreed or Strongly Disagreed. The spread of ratings here indicates the range of feeling within the group about how to communicate with multi-modal communicators. One student did not record a response for this question. The students were given basic signing training, plus a session on how to use communication supports such as symbols, modification of language, time for language processing, and use of facial expression and gesture to support spoken language. The spread of responses indicates that whereas providing this training had benefits, it actually needs to be more pervasive to a context to allow students to gain confidence in using these strategies effectively.

Question 5 addressed students’ motivations: “I am motivated to seek a placement with adults with learning disabilities” (Strongly Agree to Strongly Disagree). Results from Question 5 revealed that 7 students replied Agree or Strongly Agree, while only 1 student replied Disagree or Strongly Disagree. The experience of being taught by adult service users had not convinced all students to consider requesting a placement with this group. The Learning Disability Partnership involved
with this project feels that an important part of this teaching and learning session should be about promoting an awareness and interest for the speech and language therapy students participating. They ensure that they leave contact information for those who wish to follow up any issues from the teaching. Also, this Partnership has an ongoing and strong commitment to having speech and language therapy students on placement. Issues around disability awareness could be explored further in future teaching at the university.

The next question, Question 6, asked students, “Describe how this day has been useful to you as a student practitioner.” The student respondents’ comments regarding this question were separated into seven key areas that were as follows:

1. Valuing having the opportunity to see how service users used the training session to maximise their own skills was an important issue for 1 respondent. Comments included, “allowing them to maximise the capabilities they have.”
2. Six student respondents stressed that they gained much from hearing about key issues from the service users’ point of view. Comments included, “Realisation how important feeling useful is for these adults, and having choice”; “To see the communication needs from the point of view of a person with a disability---also, what they want from a co-worker and employment”; “I have learnt to see the needs of the service from a service user’s point of view”; “It’s helped me to realise the range of people I may work with”; and “It has given me a lot more confidence of how to react.”
3. Opportunities available for adults with learning disabilities did strike two respondents as an issue that would have an influence on them as practitioners. Comments included, “It has been interesting to see what is on offer for adults with learning disabilities.”
4. One respondent reflected on the necessary strategies needed to allow such a training session to take place. Comments included; “appreciating the repetition of things, e.g., watching videos or photos many times so the clients feel comfortable.”
5. One respondent reported no view at all.
6. One respondent commented how much he/she appreciated gaining some insight into service users’ everyday lives: “It has given me insight into what life is like for adults with learning disabilities and what they like doing during their everyday lives.”
7. One respondent reported that the session “taught me how much patience you need with working with learning disabilities,” but there was no supporting statement as to why patience would be needed.

Finally, Question 7 asked the students, “What other training would you like to receive from adults with learning disabilities?” The student respondents’ comments regarding this question were separated into four key areas that were as follows:

1. Seven respondents felt that they would benefit from further training from service users to teach them how to communicate more effectively with this group. Comments included, “Showing us how they communicate and what helps them to get their message across”; “How to use communication effectively to communicate with adults with learning disabilities”; “I would like to learn more about communicating with adults with learning disabilities, e.g. more Makaton training”; and “how to respond naturally ...without any offence.” One comment, however, was written in an inappropriate manner for this section. The quote being that, in terms of training, the student would like to know “how to control/handle them better.” All forms were anonymous, but it was felt on discussion with other staff members that such issues should be taken forward more purposefully in clinical tutorials where there is opportunity to explore issues in a “safe” and confidential environment.
2. Two respondents felt it important to learn more about disabilities and their impact on everyday life from the service users themselves. Comments included, “more about their experiences in the community and within the services”; “I would like to know more about what adults with learning disabilities would like to gain from Speech and Language Therapy input.”
3. Three respondents did not comment specifically in this section, but just wrote “Thank you.”
4. One respondent commented on how he/she would like the opportunity to take part in a training context “where I can watch and see how the service users develop their communication skills and confidence over time.”
Discussion

When adult service users with learning disabilities are speaking about topics that are meaningful for them and which they have been involved in planning or initiating themselves, they appear to convey a strong message. This was clearly reflected in some of the student comments:

- “I did not expect the service users to be able to pass on such a strong message to us as a group about what was important to them. Their level of skill really surprised me.”
- “I had no idea about what we were going to listen to today. I thought it would be basic. It wasn’t, and I have been given a lot more to think about. I’d really like a placement with adults with learning disability.”
- “I thought the first presentation was great because not everyone could talk. The non-verbal group member was supported to put her view across by gesture and photo support. I was very impressed.”
- “I thought that having the Makaton training was a great support for us. I’d like to do more. I also found it good to have the talk about the kinds of questions we should try and ask. I hadn’t thought of how I would make my language simpler. It was a real challenge for me.”

From such comments, it appears that these students are beginning to think about issues such as disability and identity. Given that none of the students reported having any sustained contact or work experience with adults with learning disabilities, it was felt that the training had provided some vital awakening linked to the learning outcomes required of them, such as the awareness of social and environmental implications of communication disability and the barriers to successful communication (Costello et al., 2001). It was perceived as being a valuable experience. From the questionnaire ratings, 7 students strongly agreed and 6 students agreed that they had been helped to view the needs of service users differently. No participants gave lower ratings.

All the students appreciated the benefit to them as developing practitioners of the training as reflected in the comments in the results section, and there were many statements about the desire to learn more about useful communication strategies to employ with service users as a training opportunity. Some had not really considered how they might modify their language to promote positive interaction and had found this a challenge. It would have been particularly useful for the students to discuss and explore some of the issues that came up (e.g., how comments are phrased, such as the one which stated that training was need to ascertain “how to control/handle them better”). Such a session could have been an opportunity to explore in more depth some of the issues of disability awareness, language, and identity which had been touched on. Also, only 13 of the group filled out the evaluation forms, so the views stated in this paper are not necessarily representative of those of the whole group; it is acknowledged that a greater number of student feedback would have given a more substantial amount of data.

The informal discussions with service users revealed that providing training did actually have great benefits for themselves, not least to their self-esteem, confidence, pride, and a sense of ownership as to what was being delivered. It also represented a specific and meaningful role for all of the service users beyond their daily living experiences. It would have been useful to involve the service users in more formal evaluations to gain their own views on how the session went, if it enhanced their communications skills (and, if so, how), and their opinions on what future training should involve for the students.

Conclusion

It is clear that this trial teaching session had benefits for both the students and the service users in terms of raising awareness of disability and building confidence and skills for both groups. From informal debriefing discussions with the service users, they indicated clearly that they felt valued and that they developed increased confidence skills and heightened self-esteem. Two of the service users said that they felt it had given them a meaningful role that was beyond their usual daily experiences.

The benefits in terms of well being, confidence, and communication potential are still largely unexplored, although the studies mentioned in this paper have already highlighted that there are considerable advantages for people with learning disabilities being given the opportunity to lead and initiate training. It is felt, though, that service users appear to gain substantial benefits in terms of improving their communication confidence and skills in generalised settings.

The questionnaire and the training day raised a number of issues about disability awareness and how little the speech and language therapy students in this course knew. Given that none of the students had any previous sustained contact or work experience with people with learning disabilities, the training had provided an important trigger for their awareness of disability. In addition, issues around the social and environmental implications of communication disability
and the barriers to successful communication were an important learning goal for them.

It was acknowledged that issues around disability awareness and communication barriers needed further work and exploration within the context of the course. All the students appreciated the benefit of the training to them as developing practitioners. Many wanted to learn more about useful communication strategies. Some had not really considered how they might need to modify their language (e.g., what words to use and how comments are phrased) and had found this a challenge. It was felt that such issues should be taken forward more purposefully in clinical tutorials where there is an opportunity to explore issues in a safe environment.

This project is now in its next phase. It has included pre-and post-student measures as well as more specific service user measures. Besides people with learning disabilities, the project has included a person with a tracheaostomy, a person with aphasia, parents of children with complex learning and communication needs, and an adult with a chronic stammer. Their feelings around participation in such a project have been sought through focus groups and the data is currently being collated and analyzed. Methods of analyzing the impact of service user teaching on students learning still requires further exploration. The suggestion is that the participative role of service users in class-based teaching has a positive role in promoting awareness of client needs as well as developing clinical interests. Further work within this project will seek to explore learning and communication competence measures for both groups involved.

References


CELIA HARDING was a full-time speech and language therapist in the NHS for 19 years, until taking up a teaching role at City University. Her previous experience has included work with children and adults with learning disabilities, paediatric dysphagia from neonates to teenagers, both acute and community, and...
children with complex special needs including autism. These interests are still maintained clinically for one day a week. In addition, the author has a strong interest in disability, particularly children and adults who were premature infants. Current teaching involves the areas of learning disability, augmentative and alternative communication, and eating and drinking disorders. It is felt that using adult service users in teaching also enhances their own skills and confidence in terms of their communication development and this is an area currently being researched further in collaboration with colleagues in the NHS.

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Teaching Policy Theory and its Application To Practice Using Long Structured Case Studies: An Approach that Deeply Engages Undergraduate Students

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This paper reviews the use of extended case studies as a teaching method to deeply engage students in the learning and understanding of policy theory. Discussion commences with a review of the literature on the use of case method as an approach to teaching and learning and then critiques the results of student surveys that questioned their opinions on the effectiveness of the case teaching method as experienced in their policy studies course. The analysis of the findings suggest that where a key course goal is to teach policy theory and enable students to use it as a tool to analyze practice, then at the undergraduate level, long structured case studies extended over a number of weeks are most effective. Engaging students in extended case studies helps them develop applied policy skills, an understanding of policy theory and greater capacity to apply theoretical concepts to assist in the analysis of real, everyday policy problems. This paper argues that extended case studies that involve students in the research and analysis of contemporary policy issues is an effective way of engaging students in course material and encourages deep learning.

A key challenge faced in university teaching is how to actively engage students in the course material and learning objectives. This challenge is even greater when one considers how studying and learning at university is only one of a number of commitments pursued by undergraduate students. The interests and pressure of work, family, sport, and social life all compete with the time students have for university learning. This contest over student time and attention increases the need for class time at university to be effectively utilized, to be engaging, and to encourage deeper learning. The task becomes even more complex when one considers how best to go about teaching students policy theory, when the key concern for most undergraduates enrolled in professional courses is how to understand and develop applied skills for the world of practice.

This paper reviews the use of extended case studies as a way to deeply engage students in the subject matter of a policy theory course. The research examines a course that combines weekly lectures on theory with long structured case studies that examine current policy issues. The aims of the course are to enable students to develop an understanding of policy theory and then apply these concepts to analyze practice. This paper reviews the literature on the use of case method as an approach to teaching and learning and then critiques the results of student surveys that questioned their opinions on the effectiveness of the case teaching method as experienced in their policy studies course. Analysis of the findings suggest that where a key course goal is to teach policy theory and enable students to use it as a tool to analyze practice, then at the undergraduate level, long structured case studies extended over a number of weeks are most effective. Such an approach helps students (a) develop generic skills required for policy practice, (b) gain a deeper understanding of policy theory, acquire knowledge about policy theory and the policy process in the context of practice, and (c) demonstrate an ability to apply theory to analyze policy problems. Allowing the research and analysis of a policy case study to be undertaken over a longer period of time ensures the benefits of this teaching approach are realized by more students in the classroom. Extended case studies that effectively integrate the teaching of policy theory with policy practice help university policy programs develop students, who are not only technically experts in policy analysis but also capable of becoming enlightened practitioners, with a broader awareness of the forces that influence and shape public policy outcomes.

Background

Courses on public policy, policy analysis, and the policy process draw on a broad range of theoretical concepts from the political and social sciences to help analyze how individuals and organizations influence the decision making of government and shape the way we are governed. This includes, for example, theories of the state to analyze the exercise of power, an examination of the role of stakeholders and how they influence what gets on the policy agenda, the role of the media, the nature of coalitions and policy communities, and how organizations react to issues and problems. The discourse draws on distinct policy theory to understand processes of decision making such as
incrementalism and rationalism (Lindblom, 1959), and we look at different approaches for engaging in the policy process (top-down and bottom-up), problems with policy goals, and implementation difficulties (Colebatch, 2002; Lipsky, 1976; Pressman & Wildavsky, 1973). The breadth and depth of the theoretical literature means the course takes a selective approach drawing on the more common analytical frameworks and examines how they lend themselves as tools to assist in the analysis of practice.

A challenge for undergraduate students is that they often lack a depth of organizational and real-world experience to draw on to help identify how these theoretical models can be observed in practice. What approaches, therefore, are available for teachers to get students to understand the theory and then make use of it to analyze other policy issues put before them? Velenchik (1995) noted that in general, undergraduate courses tend to treat the applied understanding as secondary to the exposition of theory. Examples are used to illustrate a reference to theory, “rather than thinking of the theory as a set of tools for answering the question posed by the application” (p. 30). Case studies are seen as one approach that moves teaching beyond the use of examples for illustrative purposes to a deeper level of engagement that shifts student thinking towards the use of theory as an analytical tool (Brooke, 2006).

This paper examines a case teaching approach that immerses students in real case studies which facilitate their capacity to learn about current policy issues and, in a supported and structured environment, test their understanding of theory and how it might be observed in the case study. This approach is adopted to help address three key challenges faced when teaching policy theory, specifically the following:

- engaging students in the course material;
- motivating students to collect and analyze information relevant to policy practice; and
- developing students’ understanding of policy theory and their ability to apply theory as a tool to analyze and interpret policy problems.

Deep Learning

Student engagement is as much dependent on the approach and method adopted by the teacher as the student’s own characteristics and interest in learning. Biggs (2003) examined key factors that influence the approach students take to learning. He identified two distinct approaches: surface and deep. When students adopt a surface approach, they tend to regurgitate facts without fully understanding them, focus on completing the minimum requirements to achieve a passing grade, and generally fail to engage with the course to achieve a meaningful understanding of the content. It is unlikely that students adopting a surface approach will be able to effectively demonstrate how to apply policy theory to analyze and interpret policy issues being debated in the world around them.

When students adopt a deep approach to learning, they tend to engage more with the material of the course and not only focus on completing tasks, but they also have a concern for learning and understanding what is revealed in the process. Such students would more readily be able to grasp the value of policy theory and critically draw on it to help interpret situations of policy practice. Biggs (2003) has argued that the structure of teaching and assessment is critical in influencing a student’s approach to learning. A focus on facts and covering material will encourage a surface approach whilst teaching for active participation and engagement, building on the knowledge base that students already have, and assessing for interpretations and understandings is more likely to encourage deeper learning.

Eastcott and Farmer (1992) argued that the motivational context is important for student learning and students learn well when they feel they own the task. The learning activity needs to go beyond reproduction and the students need to be engaged in the activity working to analyze and solve a problem. Problem-based learning is seen as a strategy that actively engages students (Brooke, 2006). It is through the process of interaction and working in groups to actively solve problems that students learn from each other (Brooke, 2006; Flynn & Klein, 2001). Eastcott and Farmer (1992) suggested that knowledge is built up from a base and that students learn by building upon what they already know. A similar theme is echoed by Northedge (2003) who drew attention to the importance of teacher expertise in helping students understand and interpret what is going on. The teacher, as the expert, “is able to lend students the capacity to frame meanings they cannot yet produce independently” (p. 172). Northedge (2003) explained how a course can be structured to take students into higher levels of abstraction and analysis by building upon a case based on a reality with which students can relate. In such an environment, students join with the teacher developing their own understanding of the discourse.

These general observations about how students learn lend support to the case teaching method as a strategy for deeply engaging students in the course material. The use of group work and the focus on solving real problems suggests that a learning process centered on the examination of cases is an effective way to build knowledge around an applied setting and in the process demonstrate how theory can be used as an analytical and interpretive tool. This is important for students of policy studies because, as practitioners, not only will they be required to know about the policy
process, they will also need to competently analyze real policy problems. Just as Denhardt (2001) argues about public administration, effective policy practitioners need to be able to work back and forth between theory and practice (Szostak, 2005).

Deep Learning and the Case Method

Case methods have been extensively used in graduate business schools and have been applied to the teaching of numerous other disciplines (Brooke, 2006; Kim, Phillips, Pinsky, Brock, Phillips, & Keary, 2006; The Electronic Hallway, 1999). Its popularity as a postgraduate teaching method is demonstrated by the number of universities throughout the world that offer online case teaching resources for university teaching, particularly through their postgraduate schools of public administration and business.

In postgraduate teaching the case study method is promoted on the basis that students are engaged more directly with the material and each other (Electronic Hallway, 1996). Case teaching is seen as a way of breaking down the implied authority of the teacher and more evenly shares power in the classroom between the teacher and students. Addressing power and authority is an issue raised by Weimer (2002) who argues more effective learning takes place where students feel they have more control over the process and ownership of the material. The case method allows the teacher to maintain intellectual and procedural authority, while at the same time the teacher and students share discussion, determine what is learned, and raise questions (Electronic Hallway, 1996; Harling & Akridge, 1998). The process requires less conversation from the teacher and more input, discussion, and comment from students as they grapple with their own analysis and understanding of the complexities and challenges presented in the case. This generally represents an approach to course work that neither teacher nor student is completely familiar (Harling & Akridge, 1998). Again, this resonates with some of the more general literature on learning and teaching that argues deep learning is better served where there is a change in the role of the teacher and the traditional student-teacher relationship in the class room (Weimer, 2002).

Effective teaching also involves moving students away from familiar formats, exposing them to different approaches to learning that move them out of their comfort zone (Brookfield, 1998). The successful use of case studies, however, requires significant preparation by the teacher (Carlson & Schodt, 1995). The teacher needs to be able to facilitate good discussion, pose a range of questions that probe the key issues of the case, and, finally, bring the exercise to closure with an adequate sense of completion (Harling & Akridge, 1998).

While the use of case teaching is well practiced at the postgraduate level, there is still some question over its effectiveness in comparison to other teaching methods. Flynn and Klein (2001) observed that research on the case method is limited. Kim et al. (2006) reviewed 100 studies on case teaching and noted that the majority of research articles were descriptive, lacked data and outcome measures, and few addressed the implications for refining and improving the case method. They concluded, “it is difficult to validate the widely accepted belief that cases contribute to critical thinking skills in learners compared with conventional teaching methods” (p. 873). Despite this observation the practice in many disciplines such as medicine, law, education and business have a long history of teaching from cases that challenge learners with problems in complex, real-life situations (Brooke, 2006; Flynn & Klein, 2001; Kim et al., 2006).

Approaches to Case Teaching

The case approach particularly appeals to practitioners and professional educators since it allows them the comfort of working with real-world examples and with appropriate facilitation can lead them to deeper levels of analysis that draw on the theory to interpret and predict why things have occurred and what might happen in the future. Cases provide a context for understanding knowledge in a field of study and how to apply this knowledge to practical situations (Brooke, 2006; Carlson & Schodt, 1995; Harling & Akridge, 1998). The analysis of cases and the weighing up of possible options rather than focusing on “right way” solutions helps develop professional skills to apply in real-world settings (Flynn & Klein, 2001). Undergraduate students, however, generally lack the same level of real-world experience that postgraduate students so readily draw on to assist with their analysis of the forces that influence individual and organisational behavior in a case study. How then might case studies be structured to allow a similar depth of analysis to occur with undergraduate students who lack a comprehensive level of engagement in practice?

Drawing on the work of Ronstadt (1994), Harling and Akridge (1998) identified five types of case studies, each structured to engage students differently. This includes the following:

- **Anecdotes.** These types of cases describe a problem and what was done. They are used to demonstrate how problems are resolved. Generally, little analysis is required and the anecdote is used to illustrate a concept or introduce a new topic.
- Technical problem solving. These cases focus on getting students to use a particular tool or model to solve a problem. The focus is on practicing using the analytical tool to arrive at the correct solution.
- Short structured cases. These cases involve students in applying their knowledge to improve the situation. The type of required answer is known and the student is challenged to select the most appropriate conceptual tool or method to improve the situation.
- Long structured cases. These cases deal with complex organizational and policy problems where there are no clear solutions. Students will draw on qualitative and quantitative data to help analyse the issue and the detail of information around the case may be extensive.
- Ground breaking cases. These are exploratory cases that focus on the type of analysis, expertise and experiences that can be exchanged around the case topic. The focus is on the analytical approach rather than the solution. (Harling & Akridge, 1998, p. 3)

At the postgraduate level cases are generally reviewed, analyzed and solutions considered during one session. For complex cases this may extend to two class sessions, particularly where the case lends itself to a range of theoretical interpretations. At this level of teaching, short structured and long structured cases are likely to be more common. At the undergraduate level, a longer period of engagement with the case material is required to achieve a deep understanding of theory and how to apply it as an analytical tool. Brookfield (1991) argued that students need more time in class to mull things over and reflect on their experiences and the new material they have learned. A structured, longer case study provides students the extra time needed to become familiar with the detail of the case and develop a more comprehensive understanding of what is actually going on. This in turn gives students more time to reflect and integrate the theoretical material with their analysis of the case. A key finding of the work of Flynn and Klein (2001) in their analysis of the case method is that individual learning is enhanced where there is more time for group discussion and individual preparation. Having more time for discussion and analysis builds student confidence with the content of the case. Confidence and a better understanding of the detail helps students with limited organizational and policy experience to draw on the policy theory as an analytical tool and apply it to the case with more assurance and certainty.

The case study experience examined in this paper reflects the characteristics of long structured cases. The focus is on complex problems. There are no obvious solutions to the case and the process of identifying and collecting relevant information to assist in analysing the case is equally important as weighing up the options and selecting a preferred course of action.

Methodology

The following discussion examines survey data from students involved in three consecutive, long structured case studies, each of 4 weeks duration. Students attended a weekly lecture on policy theory and a weekly workshop to examine their case study. The case studies were live issues currently being debated in the media or subject to a parliamentary inquiry. Students were provided with background material on each case study and allocated to groups to work on structured tasks that required further research and analysis of the policy issue that forms the case. The case study is designed to reflect an applied policy analysis exercise and in the final workshop students are engaged in a role play that requires stakeholders to present their analysis and recommended actions for dealing with the policy problem to a team representing senior public officials and government ministers. At the conclusion of the role play, the public officials/ministerial team present their analysis of the issue and the actions that they have determined should be implemented as the government’s response to the policy problem.

A general debrief then follows which commences with a report from a number of students who acted as independent observers, watching and note-taking as each stakeholder group made representations to the ministerial team. These students report on what the role play revealed about the policy process and policy theory covered in the course. This leads to a broader discussion facilitated by the teacher about policy practice and policy theory.

Over the duration of the course students repeat the same exercise on three different policy issues and submit various pieces of written work for assessment. At the very end of the course, students submit a reflective journal where they are required to comment on what insights and learnings they gained from the case studies about policy theory and how it applies to practice (Gibb, 1999). The reflective journal is an important component of the learning framework that challenges students to draw the link between theory and practice. Hubbs and Brand (2005) noted in their critique of the use of reflective journals that they are effective tools for allowing students the opportunity to mull things over and piece together unconnected ideas and concepts. They argue that this process is “central to developing competent practitioners” (p. 62).

The survey instrument used a combination of closed and open-ended questions to explore students’
perception of the effectiveness of case studies in teaching policy theory and policy practice. The multi-item questionnaire used 13 measures of perceptions regarding the effectiveness of case studies. Respondents were asked to choose from four response options (from \textit{extremely effective} to \textit{not effective at all}) in answering 12 questions (Q4 – Q15) relating to specific issues raised in the literature regarding student engagement and deep learning. Some of the key themes the questions covered include how effective the case study was in

- \textit{improving their understanding of key concepts (Q5)};
- \textit{engaging with the course material (Q6)};
- \textit{facilitating student interaction (Q10)};
- \textit{developing their understanding of policy practice (Q11), policy theory (Q13)}; and
- \textit{how effective the process was in helping them to apply policy theory to analyse practice (Q15)}.

The responses to the closed questions indicate an overwhelming positive reaction to the case study experience. Ninety-five percent of students rated it as an effective learning experience. Only two of the 12 closed questions had less than 90% of respondents indicating the case study was generally or extremely effective. This was in respect of Q8 where 21.7% of respondents said analyzing case studies was generally not effective in making them feel that they were in control of the process and Q12 where just over 11% of students (7 respondents) said they found the process generally not effective in helping them learn about policy theory by building upon existing knowledge.

The strongest response was in respect of student interaction where two-thirds of respondents (67%) found the case study extremely effective in helping them interact with and learn from other students. Half the students found the case study extremely effective in helping them understand the complexities of policy practice. In respect of questions on understanding policy theory (Q13) and how to apply theory to analyze practice (Q15), just over 90% of students found it generally effective or extremely effective (though the majority of respondents, two thirds, indicated it was generally effective).

\textbf{Qualitative Responses}

The responses to the open questions were extensive and the tone overwhelmingly positive. Overall, 260 qualitative comments were recorded. The fact that students took the time to provide detailed written comments suggests they placed a high value on the process as a learning experience. However, some students still found room for improvement with the process. Of the 260 qualitative comments, 59% could be categorized as positive, 11% as neutral (the respondents indicated they had no comment to add), and the remaining 30% made comment on areas for improvement and some could be considered negative.

Positive responses commented on teaching style, the learning process, and learning outcomes. Students also commented on their interest in the policy topics, the applied relevance, and the value of working in groups. A key aspect of student comments concerned the realism of the role play and the insight it provided into the policy process. The role play was seen as an effective way to compensate for their lack of real-world experience in policy work.

Negative responses and suggestions for improvements reflected student concern about class presentations, their participation in the final role play, time spent on the case study, level of interest in the case study topic, and approaches to teaching. A number of sample comments are listed below grouped under these themes.

\textbf{Student concerns about presenting material and the level of participation in the role play.}

- The role play can be more detailed if we had more time.
- Presentations/talks were boring.
- Less presentations.
- Didn’t like spending 30 minutes sitting outside the classroom doing nothing during the role play.
### TABLE 1
Summary of Responses to Closed Questions

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Not at all effective (%)</th>
<th>Generally not effective (%)</th>
<th>Generally effective (%)</th>
<th>Extremely effective (%)</th>
<th>Total Valid Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4: How effective did you find the way the case was facilitated by the teacher in helping you get value out of this learning experience?</td>
<td>0</td>
<td>0</td>
<td>49.2</td>
<td>50.8</td>
<td>61</td>
</tr>
<tr>
<td>Q5: How useful did you find the case study content in helping you to develop your understanding of key concepts in this course?</td>
<td>0</td>
<td>1.6</td>
<td>50.8</td>
<td>47.5</td>
<td>61</td>
</tr>
<tr>
<td>Q6: How effective was the case study in enabling you to actively engage with the course material?</td>
<td>0</td>
<td>3.3</td>
<td>52.5</td>
<td>44.3</td>
<td>61</td>
</tr>
<tr>
<td>Q7: How effective was the case study in making you feel that you were actively working to analyse and solve a problem?</td>
<td>0</td>
<td>4.9</td>
<td>47.5</td>
<td>47.5</td>
<td>61</td>
</tr>
<tr>
<td>Q8: How effective was the case study in making you feel you had control over the process?</td>
<td>0</td>
<td>21.7</td>
<td>60</td>
<td>18.3</td>
<td>60</td>
</tr>
<tr>
<td>Q9: How effective was the case study in making you feel you had ownership of the workshop material?</td>
<td>0</td>
<td>10</td>
<td>65</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>Q10: How effective was the case study in helping you interact and learn from other students?</td>
<td>0</td>
<td>6.6</td>
<td>26.2</td>
<td>67.2</td>
<td>61</td>
</tr>
<tr>
<td>Q11: How effective was the case study in helping you understand the complexities of policy practice?</td>
<td>0</td>
<td>8.2</td>
<td>41</td>
<td>50.8</td>
<td>61</td>
</tr>
<tr>
<td>Q12: How effective was the case study in helping you learn about policy theory by building upon knowledge you already had?</td>
<td>0</td>
<td>11.4</td>
<td>65.6</td>
<td>23</td>
<td>61</td>
</tr>
<tr>
<td>Q13: How effective was the case study in developing your understanding of the policy theory covered in this course?</td>
<td>0</td>
<td>6.6</td>
<td>67.2</td>
<td>26.2</td>
<td>61</td>
</tr>
<tr>
<td>Q14: How useful was the case study in enabling you to develop higher levels of abstraction and analysis?</td>
<td>0</td>
<td>6.6</td>
<td>75.4</td>
<td>18</td>
<td>61</td>
</tr>
<tr>
<td>Q15: How effective was the case study in developing your skills in applying policy theory to analyse and interpret practice?</td>
<td>0</td>
<td>8.2</td>
<td>65.6</td>
<td>26.2</td>
<td>61</td>
</tr>
<tr>
<td>Q18: Overall, have you found the case study a worthwhile learning experience? N=60</td>
<td>No = 0</td>
<td>Unsure = 5%</td>
<td>Yes = 95%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Preference for more time to be spent on the case study.**
- Instead of four weeks maybe make it longer so we can cover it in greater detail.
- Rather than having three case studies, limit it to two. I felt a bit rushed.

**Complaints about the case study topic not being of interest.**
- Drop obesity; it’s a boring policy area.

**Request for different approaches to teaching.**
- Make use of interactive materials such as videos to spice up the case study even further.

**Implications for Case Teaching at the Undergraduate Level**

**Developing Skills Required for Policy Practice**

Velenchik (1995) suggested that effective case teaching required the selection of cases that did not require students to possess significant institutional or historical knowledge and noted “it is best to select cases in which all the factual material necessary for analysis is included” (p. 35). While this approach suits the review of cases within one class session, such an approach fails to develop some of the core policy analysis skills required of effective practitioners. Requiring students to research and locate information over a longer period of time directly engages them in the task of policy work. This was borne out in the following student comments:

- There was not so much work due the next week that it was overwhelming, but enough for us to learn lots. I gained a lot of insight into the policy process.
- I gained experience on how policy and its stages work.
- I gained knowledge into how policy works in practice.

Working in teams, sharing information and critiquing issues as events unfolded over time linked students to a body of policy practice that they had not
yet experienced. Long structured cases extended over a period of weeks allows for more exposure and practice of other related policy skills. Through the structure and design of the weekly case tasks students developed debating skills through class discussions, presentation skills through in-class presentations and group work skills. The scheduling of weekly tasks also required students to develop skills in managing a workload within defined timeframes. Ninety-two percent of students indicated the process was effective in helping them understand the complexity of policy practice (Q 11). Evidence of the application and development of policy skills was revealed in the following qualitative responses:

- Having to work in a group and having deadlines to meet (provision of information to the group) was a great simulation of a real-life work scenario.
- I think my research skills have definitely improved following this case study.
- Having every group member consistently doing their share of the weekly workload as initially agreed made a difference.
- Through the role play I learned how communication is done but I also learned what personal attributes I need to be able to communicate effectively with others under pressure.
- I also learned more about presentation and group skills.
- I think it was good for learning to interact with others who disagree and learn the intricacies of diplomacy.

These skills are readily transferable to policy positions in the world of practice. Requiring students to undertake tasks, apply knowledge and engage in problem solving skills that they would encounter in everyday policy work lends greater authenticity to the case study exercise (Kim et al., 2006). Ninety-five percent of students indicated the experience was effective in making them feel they were actively working to analyse and solve a problem (Q7). The authenticity of the problem and associated tasks makes the exercise important for students and helps maintain their motivation and interest (Bain, 2004).

Understanding and Knowledge in the Context of Practice

The structured nature of the learning environment also challenges students to draw on theory to enhance their analytical and interpretative skills. It is the engagement in a time frame that extends beyond the class schedule that transforms the student relationship with the case into an applied experience not dissimilar to that of policy practitioners. Students learn through their extended case experience that knowledge is understood and applied within the context of problems and issues that are continually developing in the world around them. This was evident in a number of student comments about their understanding of how stakeholders act in the context of policy problems.

- I really enjoyed this case study because it gave me a better understanding of the policy process. It also made me realize that there are a number of stakeholders and it is difficult to make everyone happy.
- I gained an overall understanding of the roles of key stakeholders and how these stakeholders exercise their power within the policy process.
- I found that forming a policy for a particular problem is quite complex.
- I learnt how to analyse a problem from different views.

By being actively engaged in decision making, drawing on the information they have collected and analysed around a real-world policy issue, students experienced the use of knowledge and theory as a participant, rather than just learning about it in the abstract (Carlson & Schodt, 1995; Harling & Akridge, 1998; Brooke, 2006). A recurrent theme across student comments was how close the case study was to real life and how it effectively linked their classroom experience to what happens in the policy process. A number of students commented on this theme:

- I gained a better and clearer understanding of policy processes in real practice.
- I learnt the realities of working in the policy field.
- I feel as though I was able to at least simulate policy work in the real world.
- The role play was extremely useful because it effectively looked at the ministerial/stakeholder relationship. In the role play all the factors that contribute to the policy process naturally rolled out. It gave me a first hand experience on how things are done in real life policy making.

The case method examined in this paper concerns extended case studies that involve students in actively sourcing information to learn more about the background and interest of participants in the problem, locating relevant research, and compiling quantitative
data that assists in measuring and defining aspects of the problem. This process of building familiarity with problems over a number of weeks is carried out in small groups. Students work collaboratively to develop their own solutions. The use of group work facilitates deeper learning and enables students to cover a broader range of material than if done on an individual basis (Flynn & Klein, 2001). Working with others exposes students to different ideas and alternative points of view. Through the process of cooperative group work students progressively interpret and analyze information they collect as part of their case work. Discussion in small groups helps students reinterpret and reconsider what they have found. Through their small group work students are engaged in a continuous process of reflection and review about their understanding of the case and how the policy theory can be used to analyze and understand the dynamics of the problem. This observation is reinforced by responses to the survey question that asked how effective the case study experience was in helping students interact and learn from others (Q10). Sixty-seven percent of students indicated it was extremely effective and this increased to 93% when respondents who indicated it was generally effective are included.

**Putting Theory into Practice**

Knowing the detailed complexity of the case study is critical for students to then move to an analytical frame of thinking that looks at how theoretical concepts might be observable in practice. Being comfortable with the case material enables students to move their thinking towards a level of abstraction that relates specifics of the case to elements of conceptual models. Just over 90% of students indicated the process was generally effective or extremely effective in getting them to understand policy theory and how to apply it to analyze practice (Q15). Relevant student comments include the following:

- The scenario in the fourth week put into practice all the elements of policy theory we had learned, i.e. vertical and horizontal authority.
- I gained a deeper understanding of the political nature of the policy making process.
- I was able to put practical and theoretical ideas into practice. This helped me understand the policy process better.
- It was an interesting case study that helped me understand the complexities of policy making.

The role that teaching plays in facilitating and leading this intellectual development is important. The teacher plays a critical role in helping students develop and consolidate their own conceptual insights. By drawing on the teacher’s expertise and explanations students can more effectively articulate in their own words how they see the link between theory and practice. When asked to rate the effectiveness of the teacher in facilitating the case study and enabling students to get value out of the case study exercise 100% scored this as extremely effective or generally effective (see Q4 in Table 1). This positive response highlights the important role the teacher plays in motivating learning. The contribution of the teacher is a significant influence on the results measured in this survey.

When Velenchik (1995) evaluated the use of case studies for her intermediate undergraduate courses, she found that students exposed to this method of learning were able to more competently grasp theory and effectively apply it to analyze the real world. Similarly, Flynn and Klein (2001) observed that the use of cases moved learning and teaching away from measuring facts to the application of concepts and theories. They found the use of small group work enhanced the tasks of analyzing, explaining and synthesizing. When engaged in case work, students developed better listening skills and felt more engaged and responsible for their own learning (Brooke, 2006; Velenchik, 1995). This point is further reinforced by Nortridge (2003) who argued that the use of real cases enables students to engage in the material and subject discourse at levels that relate to their own experience and understanding.

Szostak (2005) argued that exposure to the complexity of real world policy problems should be an important component of university policy programs. Examples in lectures are often abstract, condensed versions of a more complex reality, and case studies allow students to become more familiar with the complexities of every day policy problems. Student feedback collected for this research project and the comments made on policy theory in their reflective journals confirm this observation. The analysis documented in the reflective journals demonstrated that a majority of students were able to competently draw on theory to explain events and analyze the dominant characteristics of policy problems. This intellectual development is further reinforced by the quantitative results where 94% of students indicated the case study was effective in developing their understanding of policy theory (Q13) and 88% indicated it was an effective way to learn about policy theory by building upon knowledge they already had (Q12).
More Time Delivers More Benefits for More Students

Case studies also allow for multiple interpretations as students reflect on their own personal experiences that relate to the case and demonstrate similar dynamics. However, undergraduate students are different to postgraduate students in the level of experience they are able to draw on to help analyse and understand complex cases of public policy. This difference needs to be compensated for in terms of time and facilitated support. Making use of long structured cases allows students more time for critical reflection and also accommodates varying levels of student participation and contribution. Not all students perform at their very best every week. Over a 4 week period, students can manage their contribution within the context of the other pressures and commitments they face in life. By working through the case in small groups students are able to draw on other members to compensate when they are not operating at their peak level. A number of students commented on the value of this approach in their qualitative responses to the survey.

Follow up, review, and incremental summation is also more manageable over an extended period. Rather then relying on a brief summation at the end of class in situations where the case has been covered in one sitting, long structured cases spread over a number of weeks allows for incremental summation and weekly review. In this situation it is more likely that a majority of students will have engaged at some point in the learning and conclusions that the group reaches from their weekly tasks and analysis. Such an approach also accommodates the varying levels and pace at which students learn. For some, the ability to use theory as an analytical tool falls into place during the first session, whilst for others the process of enlightenment takes longer (Meyer & Land, 2003). The quantitative results indicate that 98% of students found the case study effective in helping them understand key concepts of the course (Q 5), while 96% indicated the process was effective in actively engaging them with the course material (Q 6). Extending the case analysis over a few weeks provides opportunities for all levels of learning to engage with the detail of the case and the policy theory (Bain, 2004). Again, this can be observed in the student feedback where some students suggested a longer period of time on the case study would have facilitated deeper learning while another noted that repeating the process built confidence with the analytical tasks.

- The length allocated for each case study should be longer so that we can have a deeper understanding of the case.
- I felt more confident about this case study as we had already been through one. I gained more confidence also in identifying the policy agenda and the way in which the media use their tools of persuasion to get a certain point of view.

Harling and Akridge (1998) also point out that successful case teaching requires students to understand and appreciate the changed role they play in class discussion and participation. Responding to this new role takes time and repetition of the process assists with building confidence and familiarity (Flynn & Klein, 2001). Incrementally, as students build their knowledge and level of familiarity with each policy case, an environment of relative comfort emerges that facilitates higher levels of class discussion and participation. This sentiment was clearly articulated by one student who noted,

I gained knowledge about how to best communicate with others. The course has helped develop my confidence to speak out about things that I wanted to talk about.

Conclusion

This paper puts the case for extended case studies that engage students over a number of weeks in the research and analysis of contemporary policy issues. If we want to move students beyond a level of familiarity with policy theory to actively use conceptual models as tools to analyse practice then they need to be given more time to practice the task of policy analysis. Working with others over a number of consecutive sessions enables students to adsorb and reflect on the theoretical concepts in the policy literature and practice its application to real-world problems. This sequential building of knowledge around a case develops student confidence and capacity to apply theory as an analytical tool. Students become deeply engaged in the course material and not only develop potential solutions but display an interest in what has been revealed from the process (Flynn & Klein, 2001).

Policy analysts work in a diverse range of settings and draw on a range of technical and analytical skills as well as engage with people and stakeholders in listening and consulting about issues of public concern. The tasks of undertaking analysis and providing advice is more likely to bring analysts into contact with a political world where other forces beyond rational assessment shape what is finally agreed and acted upon. Engaging undergraduate students of policy studies in long structured case studies over a period of weeks effectively immerses them in the real world of policy practice. Students are required to research, analyze, and understand the interests and roles of key stakeholders engaged in the policy problem. As
students’ knowledge and understanding of the stakeholders grows, they readily adopt characteristic behaviour and attitudes of these stakeholders in the final role play (Carlson & Schotd, 1995). As they act out the interest and preferences of stakeholders, students observe and experience the role of politics in the policy process. In the context of academic learning, students are challenged to intellectualize this experience so they can see the value of policy theory and how it helps put in context a range of forces and processes that shape policy work and policy outcomes. The survey results demonstrate this with 93% of students indicating the case study process was effective in enabling them to develop higher levels of abstraction and analysis (Q 14).

Practicing the policy skills of group work, research, and stakeholder analysis are important for effective policy work. However, being able to conceptualize events within broader theoretical models develops the enlightened analyst who can predict and anticipate likely outcomes. This is different from the functional analyst who practices policy skills on a routine basis without connecting their analysis and advice on issues to the broader context of events that shape public policy. It is the enlightened analyst with a strong foundation in theory that university policy programs should be striving to develop (Szostak, 2005). Obtaining a deep understanding of policy theory and experiencing its application to practice through case studies is one way university courses can contribute to the development of such graduates. Of course, the role of the teacher is a critical factor contributing to the success of any teaching method and more research is needed on how this person brings to the task contributes towards the positive learning outcomes of the case method.

References


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Appendix A
Student Survey Form

1) Which particular aspects or elements of the case study did you find most useful?
2) Which particular aspects or elements of the case study did you find least useful?
3) Are there any areas/topics of the case study you think should have been explored in more detail/further?
4) How effective did you find the way the case study was facilitated by the teacher in helping you get value out of this learning exercise?
5) How useful did you find the case study content in helping you to develop your understanding of key concepts in this course?
6) How effective was the case study in enabling you to actively engage with the course material?
7) How effective was the case study in making you feel that you were actively working to analyse and solve a problem?
8) How effective was the case study in making you feel you had control over the process?
9) How effective was the case study in making you feel you had ownership of the workshop material?
10) How effective was the case study in helping you interact and learn from other students?
11) How effective was the case study in helping you understand the complexities of policy practice?
12) How effective was the case study in helping you learn about policy theory by building upon knowledge you already had?
13) How effective was the case study in developing your understanding of the policy theory covered in this course?
14) How useful was the case study in enabling you to develop higher levels of abstraction and analysis?
15) How effective was the case study in developing your skills in applying policy theory to analyse and interpret practice?
16) Could you please write a few comments on how you found doing this case study task, and what you feel you gained from it?
17) Do you have any recommendations for changes to how the case study is taught, or other comments to add?
18) Overall, have you found the case study a worthwhile learning experience?
Toward a Summative System for the Assessment of Teaching Quality in Higher Education

Timothy Murphy, Iain MacLaren, and Sharon Flynn
National University of Ireland Galway

This study examines various aspects of an effective teaching evaluation system. In particular, reference is made to the potential of Fink’s (2008) four main dimensions of teaching as a summative evaluation model for effective teaching and learning. It is argued that these dimensions can be readily accommodated in a Teaching Portfolio process. The Teaching Portfolio initiative that is in use for the Postgraduate Certificate Programme in Teaching and Learning in Higher Education at the National University of Ireland Galway is a case in point. The challenges encountered when attempting to develop mechanisms for the summative evaluation of quality teaching are explored, as well as some of the possibilities for their resolution.

It is recognized that the task of assessing the nature, quantity and quality of teaching is a highly complex activity. As Chism (1997) pointed out, “any good approach to evaluating teaching will reflect the complexity of teaching itself” (p. 7). It has even been suggested that it is not easy to arrive at a consensus of what constitutes good or effective teaching (Babin, Shaffer, & Morgan, 2002; Casey, Gentile, & Bigger, 1997; Murphy & MacLaren, 2007). The challenge at arriving at such a consensus is compounded because there are real variations in teaching quality “in different courses, between different subject areas, and within subject areas” (Casey et al., 1997, p. 462). While recognizing the complexities involved in any substantive discussions about the value of teaching, Chism (1999) did acknowledge the research that has consistently shown that there is a great deal of consensus on what characterizes effective teaching. Among those factors that are consistently advanced are subject matter competence, preparation and organization, clarity, enthusiasm, and interpersonal rapport (Chism).

Arreola (2007) does appreciate the extent to which the concept of excellence has invaded the current lexicon of higher education. With reference to faculty evaluation, he described this as the “Lake Woebegone” model. According to this view, higher education as a profession “is stuck in the silly verbal knot of expecting everyone to be what, by definition, only a few can be” (Arreola, 2007, p. 25). As a consequence, he pointed out that “the pursuit of excellence in higher education has resulted in many faculty receiving neither the time, resources, nor incentives, to develop the skills necessary to become competent teachers” (p. 25). Notwithstanding this challenge, however, he identified five broad skill dimensions required for teaching to emerge. These he specifies as content expertise, instructional design skills, instructional delivery skills, instructional assessment skills, and course management skills.

These dimensions are broadly in line with Fink’s (2008) four fundamental tasks of teaching (see Appendix A). It is Fink’s (2008) contention that, there is a direct relationship between how well a teacher performs these four fundamental tasks and the quality of the student’s learning experience. If the teacher does all four well, students will have a good learning experience. To the degree that the teacher does one or more poorly, the quality of the learning experience declines. (p. 39)

Both Arreola and Fink then would be in sync with Hatch’s depiction of teaching as “a complex intellectual endeavor that demands disciplinary expertise, a deep understanding of students, and sophisticated pedagogical skills” (Hatch, 2006, p. 11).

The summative teaching quality assessment model that is being proposed for implementation at the National University of Ireland Galway is cognizant of Hatch’s insight. It aims to support the view that “effective evaluation of teaching requires some combination of evidence from the person whose teaching is being evaluated, from that person’s students, and from professional colleagues” (Chism, 1999, p. xi). Such evidence is integral to the existing Teaching Portfolio initiative at NUI Galway. The portfolio is an essential component of the Postgraduate Certificate Programme in Teaching and Learning in Higher Education. In the subsequent sections, core aspects of each of the requirements for effective evaluation of teaching will be developed, specifically those pertaining to student feedback, peer review of teaching, and teaching portfolios.

As a precursor to this whole discussion, however, it is very important to be mindful of the link between teaching and learning. There is little discussion about quality teaching in higher education today that omits some considerations of the link between teaching and learning. Fink (2002) identified the primary purpose of
teaching as generating as much significant learning as possible. Arreola (2007) further elaborated on this link when he depicted teaching “as an interaction between a teacher and a student conducted in such a way that the student is provided with the opportunity to learn” (p. 18). Additionally, he stated that “Faculty must be able to design and deliver a set of experiences to the learner such that, if the learner engages the experiences, there is a high probability that learning will occur” (p. xx).

Quality Assessment of Teaching and Student Feedback

Student Feedback Systems

Feedback from the students was acknowledged by Chism (1999) as being an integral aspect of an effective teaching evaluation system. The extent to which some type of student feedback is used in the assessment of teaching performance was acknowledged by Cashin (1999). He made reference to a US Department of Education survey (1991) of over 40,000 department chairs. The analysis of which revealed that 97 percent of the chairs indicated that they used “student evaluations” to assess teaching performance. He adroitly acknowledged, however, that “there is almost universal agreement that data from a variety of sources, not just student ratings, are required to accurately evaluate teaching” (p. 28). Centra (1993) further underscores this point. He contends that “student evaluations represent only one source of information: student opinion” (p. 89).

Limitations of Student Feedback Systems

Cashin (1999) also put the limitations of student feedback into stark relief as he sketched out a composite overview of the various elements involved in any substantive quality review of teaching. He identified these as subject matter mastery, curriculum development, course design, delivery of instruction, assessment of learning, availability to students, and administrative requirements. He believed that most students know almost nothing about the first three and that, therefore, in order to comprehensively assess the quality of teaching more data is required than what can be obtained solely from student feedback.

Encouraging Faculty Cooperation

In his discussion about student ratings, Centra (1993) made an important contribution to the debate. He contended that such ratings are most likely to have an effect when academics learn something new about their teaching. He prefaced this by stating that “involving faculty representatives in the decision about which form to use will help ensure the faculty’s commitment to its use” (p. 21). There are some noticeable parallels here with Cashin’s (1999) claim that

It goes without saying that the more confidence faculty have in the reliability and validity of a teaching evaluation system, the more likely it is that they will pay attention to the resulting data. (p. 48)

Marincovich (1999) also made a number of helpful contributions to this debate. She was especially concerned about how to use end-of-term student data, as well as other sources of student feedback for the maximum benefit of the faculty member. Specifically, she made reference to Cohen’s (1980) contention that faculty members receiving augmented feedback, or more specifically expert consultation, are much more likely to improve. She elaborated on the role that teaching consultation professionals can play here. She stated that when working with faculty,

the consultant’s most important contribution will be in helping clients to pick out those two or three aspects of their teaching in which improvements will have the greatest payoff for their students’ learning and in helping to devise improvement strategies. (as cited in Marincovich, 1999, p. 48)

She is very conscious of the view that efforts such as these, however, will be in vain if a college or university’s leadership does not “clearly signal the value that it puts on effective teaching and make that value unambiguous through its reward system” (Marincovich, 1999, p. 48).

Benefits of Peer Observation

As mentioned previously, student feedback is an important source for providing information about teaching quality but it is not the only source. In the following section, reference will be made to Fink’s (2008) main dimensions of teaching. He demonstrated how student questionnaires provide data for one of these dimensions. He also contended, however, that such feedback is complimented by classroom observations. This requirement of the assessment of quality teaching will be developed in the next section, which also includes a fuller description of Fink’s (2008) model and of its significance for summative assessment of quality teaching.
Quality Assessment of Teaching and Peer Review of Teaching

An Inclusive Understanding

While the literature on the peer review of teaching (PRT) certainly recognizes that PRT does involve some observation on actual classroom practice, the literature is also aware that PRT is not necessarily restricted solely to this activity. PRT has also been understood to include reviews of learning materials, assessment and methods of evaluating teaching (see Beaty & McGill, 1995; Gosling, 2005; Keig & Waggoner 1994). Gosling (2005) provided a helpful outline of three PRT models: an evaluative, a developmental, and a collaborative model. His evaluative model aligns closely with the intended outcomes of the summative PRT process that is being proposed for implementation at the National University of Ireland, Galway. Gosling (2005) specified the intended outcomes of such a process as

- assuring the quality of teaching,
- assisting staff to identify weaknesses in their teaching and put in place an action plan to remedy them,
- helping staff to prepare for internal or external audit processes,
- deciding whether a staff member should successfully complete probationary requirements, or achieve promotion, and
- assuring the quality of teaching and the student learning experience

Applications of Fink’s Approach

In terms of designing a summative PRT process for implementation at NUI Galway, it is being proposed that Fink’s four fundamental tasks of teaching, as outlined above, can provide a helpful initial template. At the core of his model is the correlation between the four tasks and the quality of the student’s learning experience. In order to design a PRT process then, it could be argued that the following points should be carefully considered:

1. the reviewer’s knowledge of the subject matter,
2. the effectiveness of the design or plan for the learning experience,
3. the nature of the interaction with the learner, and
4. the handling of course management issues.

The teaching evaluation model that Fink ultimately opts for, however, has a different combination. He contended that for the vast majority of academics, points 1 and 4 above are taken as a given and that therefore it is not necessary to include them. Instead, he proposed inserting gathering data about the learning achieved by students and also about the academic’s efforts to improve over time. The following criteria then represent the main dimensions of teaching for him: design of courses, teacher-student interaction, quality of student learning, and getting better over time.

Although he provided us with an important generic rubric for the design and implementation of a summative faculty evaluation system, it is very important that each individual department be given maximum flexibility for designing a system that is most appropriate for their particular needs and contexts (Arreola, 2007).

Sources of Information on Teaching Quality

Regarding the selection and identification of sources of information, Arreola (2007) presented an important “rule-of-thumb.” Arreola contended that “the important principle to follow in identifying sources is always to select the source which has the best opportunity to observe first-hand the performance to be evaluated” (p. 47). The application of this principle is clearly evident in Table 1.

Applying the rule-of-thumb for the peer review of teaching, Chism (1999), for example, claimed that

While students are the most appropriate judges of day-to-day teacher behaviors and attitudes in the classroom, they are not the most appropriate judges of the accuracy of course content, use of acceptable teaching strategies in the discipline and the like.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Primary Source of Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>The Design of Courses</td>
</tr>
<tr>
<td>II.</td>
<td>Teacher-student interaction</td>
</tr>
<tr>
<td>III.</td>
<td>Quality of student learning</td>
</tr>
<tr>
<td>IV.</td>
<td>Getting better over time</td>
</tr>
</tbody>
</table>
Table 2
Low and High Standards for the Performance Criteria of Course Design

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is based on only a casual or cursory job of collecting information about the situational factors.</td>
<td>• Is based on a careful and thorough job of obtaining information on and analyzing situational factors.</td>
</tr>
<tr>
<td>• Does not have a clear statement of learning goals, only a list of topics to be covered.</td>
<td>• Has a clear statement of learning goals, and the goals go well beyond just learning the content and simple application skills.</td>
</tr>
<tr>
<td>• Does not use active learning, only passive learning, i.e., lectures and readings.</td>
<td>• In-class learning activities include active learning, e.g., experiential and reflective activities.</td>
</tr>
<tr>
<td>• Does not give frequent and immediate feedback to students on their learning, only 1 or 2 mid-terms and a final.</td>
<td>• Students receive feedback, on their learning, weekly and at times daily, un-graded as well as graded.</td>
</tr>
<tr>
<td>• Does not use a dynamic or powerful teaching strategy; most classes are just repetitions of the same learning activities, over and over.</td>
<td>• Teacher uses a teaching strategy with a combination and sequence of learning activities that build on each other and culminate in powerful, integrated learning.</td>
</tr>
</tbody>
</table>

For these kinds of judgments, peers are the most appropriate source of information. (p. 7)

At a later stage, she underscored this point further when she made reference to Cohen and McKeachie’s (1980) point that “peer reviewers are in an ideal position to judge course content and design, materials and instruments used to assess student achievement” (as cited in Chism, 1999, p. 30)

Indicators for Quality Teaching

Fink (2008) claimed that it is possible to identify quality indicators for each of the four dimensions of teaching. What is needed, in his view, are specific standards that differentiate higher quality from lower quality teaching (see Appendix B). In Table 2, the standards for high and low quality course design are presented:

Summative Challenge for Evaluation of Teaching Quality

Arreola (2007) engaged in a critically important discussion about objectivity and the summative evaluation of teaching quality. In this connection, he introduced the concept of “controlled subjectivity” (p. xviii). He arrived at this juncture because he contended that “subjectivity in a faculty evaluation system is unavoidable” (p. xviii). In his view, “controlled subjectivity is the consistent application of a pre-determined set of values in the interpretation of measurement data” (p. xix).

His comments have implications for the entire peer review process including the peer observation of classroom teaching. De Zure (1999) offered a number of recommendations to enhance the reliability of such observations. He specified these as

1. training of observers
2. basing conclusions on more than one observation by more than one observer
3. consensus about what constitutes good teaching in the discipline with a focus on shared criteria for teaching effectiveness including the elements colleagues can judge best
4. consistency for all instructors and observers
5. the rules of the game should be known to all (the instructors, the observers, the reviewers or personnel committee)
6. the instructor should have input into the process at several stages (e.g., the selection of observers, selection of class to be observed, interpretation of the classroom experience after the observation, input into the written report).
7. a validated observation instrument should be used (Chism, 1999, 2007, Peer Review of Teaching: A Sourcebook contains sample documents that can be adapted for local use).

Links Between Formative and Summative Processes

Arreola (2007) also engaged in a significant conversation about the possible links that can exist between formative and summative processes on the quality of teaching in higher education. He contended that faculty evaluation systems which are implemented “without reference to professional enrichment
opportunities or programs, are inevitably viewed by faculty as being primarily punitive in intent” (p. xxii). Centra (1993) also acknowledged the benefits of using evaluation procedures formatively before adopting them summatively as teachers will become acquainted “with the procedures and the criteria to be used, and have the opportunity to improve their performance before being judged” (p. 5). Ideally, what you want to do then is establish a culture of open discussion and generous critique so that when you move to actually collecting data for decision making purposes, the conversations are more a part of the routine.

**Links between Formative and Summative Processes and Developments at NUI Galway**

The Partnerships for Learning and Teaching initiative that is being considered for implementation at the National University of Galway is in sync with the previously mentioned comments about the links that can exist between formative and summative processes. It is congruent with developmental processes at other universities where the focus is very much on staff working collegially to enhance the teaching and learning environment and where the outcomes could be used as evidence for quality purposes.

**Quality Assessment of Teaching and Teaching Portfolios**

**Teaching Portfolios and the Formative/Summative Dilemma: The First Catch-22?**

The previously mentioned discussion about formative and summation evaluation processes of teaching quality also has relevance for Teaching Portfolios. Murphy and MacLaren (2007) conducted a research project that examined the potential of teaching portfolios in higher education for staff development and progression purposes. The question as to how it might be possible to introduce them for summative purposes such as tenure and promotion without also losing their potential to stimulate a good deal of reflection about teaching emerged as a significant focus for the study (see also Knapper & Wright, 2001; Seldin, 2004; Way, 2002). The responses to this question in our consultations and questionnaires are divided into those who see real potential in combining both aspects and those who argue that these two purposes are fundamentally at variance and hence should be addressed via different mechanisms.

One of the respondents to the above mentioned study claimed that “summative instruments may be used for formative purposes but not the reverse” (Questionnaire Response [QR] - 14, Ireland [Ire]). However, another challenged this assumption, echoing Knapper and Wright’s (2001) claim that the differences between the summative and the formative portfolio are “not as great as might be expected” (p. 25). In support, reference was made to Snyder, Lippincott, and Bower’s (1998) conclusion that “reconciliation is possible when the assessment can be based on a broad archive of portfolio evidence gathered over a longer period of time from which the teacher can select evidence for specific assessment purposes” (Email Discussion [EM] - 20, Europe [Eur]). Nevertheless, she did recognize that “high-stake assessment will sabotage professional development because it obstructs teachers experimenting in their teaching” and that conversely “portfolio evidence for formative assessment purposes might be of insufficient quality to meet minimal acceptable quality requirements for high stake assessment” (EM - 20, Eur).

It is clear that there are particular challenges in using portfolios for judgmental and even comparative assessment of candidates for promotion (Baume & Yorke, 2002; Casey et al., 1997; Tigelaar et al., 2005). Variations abound in what is considered high quality teaching, for example, in different courses, between different subject areas, and even within subject areas (Babin et al., 2002; Casey et al., 1997; Kreber, 2002). Such assessment leaves “the question open to what extent the interpretation of these evaluations would require a conversation about how the assessment categories reflect the standards of the various disciplines” (QR - 9, United States [US]). As a result, this “would require a broad conversation about discipline-based teaching standards in addition to general standards” (QR - 9, United States [US]). Dyrud (1997) goes so far as to suggest that it is comparing apples and oranges.

**Teaching Portfolios and the Reliability Question: The Second Catch-22?**

There are additional concerns about any grading or ranking schemes that might be employed in terms of reliability, consistency, objectivity, and comparability (Moss, 1994; Murray, 1995; Ross, Bondy, Hartle, Lamme, & Webb, 1995). Given their subjective nature, “creating criteria, ensuring consistency and reviewing, even for a Pass/Fail result, can be challenging and often problematic activities” (QR - 12, Irl).

Concerns such as these underscore the importance of establishing an approach “that enables assessors to interpret meaning in context and that will have a positive effect on the intended assessment consequences” (Tigelaar et al., 2005, p. 602). Baume and Yorke (2002), for example, emphasized that “reliability is enhanced when there are explicit outcome standards against which to judge, and when there are clear and unambiguous performance data upon which to
exercise that judgment” (p. 17). Even Knapper and Wright (2001), who are very conscious about not forcing portfolios into a quantitative paradigm, still recognized the importance of establishing clear criteria for judging them. They also proposed that it is very helpful to involve the teaching community in the process of determining the appropriate criteria, whether at the institutional, school, or department level (2001) (see also Casey et al., 1997; Felder & Brent, 1996; Ross et al., 1995).

The importance of clearly specifying the criteria by which the teaching portfolios will be assessed was frequently raised by the respondents in the Murphy and McLaren (2007) study. In practice, however, they note that “quite often neither the candidates nor the assessors are clear about the content and performance standards” (QR - 17, Eur). To address this problem, “teachers and their assessors could create criteria together thus making the assessed partners rather than adversaries” (QR - 20, US). It might also be possible, according to one respondent, to ask Heads of Department/Chairs “to outline the standards of their field so that the assessors of tenure committees who come from different fields understand what constitutes excellent teaching in a specific discipline on a national as well as departmental level” (QR - 9, US).

As previously noted, Fink (2008) was primarily concerned with the quality of the student’s learning experience. The focus on student learning is also evident in Zubizarreta’s (1999) description of the portfolio for “reflective analysis and peer collaboration leading to improvement of teaching and student learning” (p. 64). A number of the items that he identifies as being potentially constitutive of a teaching portfolio readily align with Fink’s four main dimensions above. He outlined them as follows:

1. Information from oneself
   - Responsibilities, philosophy, methods, goals
   - Materials
   - Teaching development activities
2. Information from others
   - Student and peer assessments and ratings
   - Year-end evaluations by chair and dean
   - Honors and awards
   - Letters from colleagues, students, alumni
3. Products of student learning
   - Pre/post tests of learning
   - Classroom assessment activities
   - Student exams, projects, presentations, publications, essays in drafts with instructor’s formative feedback
   - Alumni assessments

In a manner similar to Fink (2008), the participants enrolled in the Postgraduate Certificate Programme in Teaching and Learning in Higher Education at NUI Galway are very much focused on being excellent practitioners of the teaching and learning process, especially in terms of maximizing the students’ learning experiences. It is in evidence that Fink’s (2008) four main dimensions of effective teaching are also reflected in the Teaching Portfolio in use at NUI Galway. It also aligns with the review of portfolios intended for ongoing summative purposes as proposed by Chism (2007, see pp. 181-185).

Teaching Portfolios and the Capacity for Reflection: The Third Catch-22?

Critical reflectivity is about opening up knowledge claims “to proper intellectual challenge” (Andresen, 2000). It is suggested that teaching portfolios may be particularly appropriate for promoting this ethos because their construction requires reflection on “what one teaches, how one teaches, why one teaches that way, how effective that is, and, if necessary or desired, effectively communicating that to others” (Babin, 2002, p. 69). As van Manen (1991) points out, such engagement allows us “to make our pedagogical lives conversationally available: debatable, accountable, evaluable” (p. 19). It also encourages practitioners to conduct research on their own sites of practice that will allow them to develop their own contextually sensitive theories of practice (Brookfield, 1995). McLean and Bullard (2000) confirm these sentiments in the following statement where they contend that portfolios:

which are produced in contexts in which critical reflective practice, authenticity, and serious engagement with ideas about the teaching/learning relationship are promoted may have the potential both to stimulate teachers to articulate and improve their practice and to be a contribution to understanding the nature of the formation of professional university teachers. (p. 94)

It is recognized, however, from Murphy and MacLaren’s (2007) consultations, that the reflective nature of teaching portfolios does present some distinct challenges for many academic staff since many people are not “naturally reflective” (QR - 2, English [Eng]) and hence find it difficult, at first, to operate in this mode of writing. There is of course also a lack of agreement in what constitutes “reflection” and “reflective writing” (see Moon, 2000) – “It is difficult to give an appropriate definition of ‘reflection’, let alone to develop content and performance standards to assess reflection” (QR - 17, Eng). Additionally, there is the added task of trying to distinguish between different
levels of reflection, “that which includes the testing of validity claims and that which is limited to making explicit one’s beliefs (which is in a way nothing more but making an assertion)” (QR - 8, Scottish [Scot]).

All this means, according to another respondent, that “many teachers from different disciplines do not really know what reflective practice means, and even if they do, they are not always clear about how to operationalize reflective practice within their own contexts” (QR -11, Irl). This, of course, implies a similar conceptual and practical challenge for the assessors of portfolios and not just for their authors. One of the respondents pointed to research that she had conducted on the status that is accorded to reflection in higher education:

According to my own research into this matter, assessors think that explicated reflections are subject to multiple modifications and interpretations and as a result will decrease the validity of a portfolio assessment. For this reason in my research assessors tended to give less weight to reflections in the portfolio than other portfolio elements (e.g. artefacts of teacher behaviour as shown on video, which seems to be more objective). (QR - 17, Eur)

Summary and Conclusion

This paper has examined various aspects of an effective teaching evaluation system. In particular, it has explored the potential of Fink’s (2008) four main dimensions of teaching as a summative evaluation model for effective teaching and learning. It emerged that these dimensions can be readily accommodated in a Teaching Portfolio process. The Teaching Portfolio initiative that is in use for the Postgraduate Certificate Programme in Teaching and Learning in Higher Education is a case in point. The challenges encountered when attempting to develop mechanisms for the summative evaluation of quality teaching are also addressed, as well as some of the proposed resolutions for same. As Arreola (2007) pointed out, however, what is clearly evident is that only when the elements of a faculty evaluation program are carefully integrated into a professional enrichment program does the institution obtain the greatest benefit from both.

References


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Appendix A

Knowledge of Subject Matter: Whenever we teach, we are trying to help someone learn about something. The “something” is the subject of the teaching and learning, and all good teachers have some advanced level of knowledge about the subject.

Designing Learning Experiences: Teachers also have to make decisions ahead of time about what the learning experience is going to include and how they want it to unfold. For example: What reading material will be used? What kinds of writing activities will they have students do? Will there be field experiences? Will the teacher use small group activities? How will student learning be assessed? Collectively these decisions represent the teacher’s design or plan for the learning experience.

Interacting with Students: Throughout a course, the teacher and the students interact in multiple ways. Lecturing, leading whole class or small group discussions, email exchanges, and meeting with students during office hours – these are all different ways of interacting with students.

Course Management: A course is a complex set of events that involves specific activities and materials. One of the responsibilities of the teacher is to keep track of and manage all the information and materials involved. A teacher needs to know: who has enrolled in the course and who has dropped it; who has taken a test and who was absent; who got what grade on their homework and exams. (Fink, 2008)
Appendix B
Criteria for Assessing Excellence in Teaching

1. Course design
   - Situational factors: Course decisions should be based on solid information about multiple situational factors, e.g., the number of students, their prior knowledge, their feelings about this subject, etc.
   - Learning goals: Are focused on higher level learning, more than just content coverage.
   - Learning activities: Are active and not primarily passive.
   - Feedback and assessment: These procedures enhance the learning process (i.e., they constitute educative assessment) and are more than just a basis for assigning grades.
   - Level of integration: The learning goals, teaching/learning activities, and the feedback and assessment procedures reflect and support each other.

2. Interaction with students
   Teacher is perceived by students as,
   - Competent
   - Trustworthy
   - Dynamic (or energetic)
   - Challenging
   - Stimulating
   - Making students feel included

3. Overall quality of the student learning experience
   - During the course: Students are engaged in their learning
   - End of the course: Students have achieved significant kinds of learning
   - After the course: What students learn has the potential to add value to their lives

4. Improvement over time
   - Seeks out new ideas on teaching.
   - Innovates and tries new ideas in one’s own teaching.
   - Evaluates own teaching thoroughly.
   - Reflects continuously on “What do I need to learn about and do next, to improve my teaching?”
The main objective of this study was to identify successful factors in implementing an e-learning program. Existing literature has identified several successful factors in implementing an e-learning program. These factors include program content, web page accessibility, learners' participation and involvement, website security and support, institution commitment, interactive learning environment, instructor competency, and presentation and design. All these factors were tested together with other related criteria which are important for e-learning program implementation. The samples were collected based on quantitative methods, specifically, self-administered questionnaires. All the criteria that were tested to see if they were important in an e-learning program implementation.

E-learning, a method which evolved from distance education, has received special attention from public universities in implementing distance learning courses. In November 2005, the Sloan Consortium published a report on e-learning and defined “online learning” or “e-learning” as learning in which the Internet is used in delivering 80-100% of the content (Charmonman, 2006). E-learning is the most recent evolution of distance learning that creates, fosters, delivers, and facilitates learning, anytime and anywhere, with the use of interactive network technologies. E-learning is the latest evolution in corporate education and training. The first electronic supplement to traditional instructor-led classroom training was computer-based training (CBT), delivered via CD-ROM to individual PCs or local-area networks (LANs.) Then, the rise of the web led to web-based training (WBT), courseware developed specifically for delivery via the Internet or intranets. Then, the ubiquitous “e” was applied, signaling a shift from the “islands” of learning going on at the departmental or line-of-business level, to enterprise e-learning (Frye, 2002). Table 1 shows the comparison between traditional distance learning and present day e-learning (see Choi, Kim, & Kim, 2006).

By 1990, about half of the world’s countries had primary enrollment rates of 100% as opposed to only 28% in 1960. The development of e-learning in Malaysia started during the pre-e-learning era when the Educational Technology Division was set up by the Ministry of Education in 1972 (Asirvatham, Kaur, & Abas, 2005). Yet, much remains to be done, as illiteracy is still a fact of life in many developing nations (Lopez-Claros, Altinger, Blanke, Drzeniek, & Mia, 2006). Even the second phase of Vision 2020, under the 9th Malaysia Plan (2006-2010), has highlighted building world-class human capital, which is one of the seven strategies for the development of Malaysia. As mentioned by Y.A.B. Dato’ Seri Abdullah bin Haji Ahmad Badawi, Prime Minister of Malaysia, the Government is interested in continuously developing the people by promoting a ‘Continuous Learning Concept’ at the industry, organisation and individual level in both the public and private sectors. The Government will set up the national ‘Life-long Learning Council’ and all public and private higher educational institutions should establish one centre of life-long learning” (Study Malaysia, n.d).

The rapid growth of web-based technologies and the high usage of the Internet have made teaching and learning via the Internet, or e-learning, more viable in recent years. Many universities and educationally-based industries have set up portals to offer an e-learning environment either as teaching aids to support conventional teaching approach or as a teaching medium for long-distance or off-campus programs (Khalid, Yusof, Heng, & Yunus, 2006).

There are currently 20 public universities and university-colleges (14 universities and 6 university-colleges), 30 private universities and university-colleges (11 universities, 5 International universities and 14 university-colleges), and over 600 private colleges in the country of Malaysia (Ministry of Higher Education, 2006). With an increase in the demand for higher education, many institutions in Malaysia have planned for e-learning (Raja Hussain, 2004). Universities in Malaysia have responded actively to this challenge, guided by the Ministry of Education's strategies to enhance the use of ICT in the e-learning (Hassan, 2002; Raja Hussain, 2004):
Table 1
Evolution of Distance Learning

<table>
<thead>
<tr>
<th>Past Distance Learning</th>
<th>Present e-Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td></td>
</tr>
<tr>
<td>Any approaches to education delivery that replace the same-time, same-place, and face-to-face environment of a traditional classroom (i.e., correspondence teaching; multimedia distance teaching)</td>
<td>The most recent evolution of distance learning that creates, fosters, delivers, and facilitates learning, anytime and anywhere, with the use of interactive network technologies (i.e., E-learning)</td>
</tr>
<tr>
<td><strong>Paradigm in education</strong></td>
<td></td>
</tr>
<tr>
<td>Focus on teaching: lesson based Objectivist model of learning in which learners are passive</td>
<td>Focus on learning: learner based</td>
</tr>
<tr>
<td>A series of lectures for efficient transfer of knowledge from instructor to learner</td>
<td>Constructive, collaborative, and cognitive information processing of learning</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td></td>
</tr>
<tr>
<td>Lack of direct interaction between the teacher and the learner</td>
<td>Interactions between instructor and learner, and among learners</td>
</tr>
<tr>
<td>Asynchronous interaction</td>
<td>Asynchronous/synchronous or real-time (e.g., chat forum, instant messaging, video conferencing) interaction</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td></td>
</tr>
<tr>
<td>Written or printed materials, broadcast media, audio/ videotapes, telephone, and CAI/ CBT with stand-alone computers</td>
<td>All electronic media, especially, network technologies such as the Internet, intranets, and extranets</td>
</tr>
</tbody>
</table>

- The preparation of sufficient and up-to-date tested ICT infrastructure and equipment to all educational institutions.
- The roll-out of ICT curriculum and assessment and the emphasis of integration of ICT in teaching and learning.
- The upgrading of ICT knowledge and skills in students and teachers.
- The Increasing usage of ICT in educational management.
- The upgrading of the maintenance and management of ICT equipment in all educational institutional.

Secondly, e-learning also ensures quality in education since technology is able to provide interactivity and active learning. Lectures are constantly modified based on learners’ feedback and hence enhance their understanding. The integration of many different rich resources like the virtual library, videos, diagrams and audio clips in the e-learning environment could be easily utilized. Adults who are busy with their daily lives can be attracted to the convenient way of information sharing. In e-learning lectures, there is no problem of unmanageable class size or insufficient number of students to start the course. As long as there are students taking the course, they can attend the class anytime at any place they want. Hence, e-learning can be a way to produce a quality and innovative generation (Mat, 2000).

Thirdly, compared to the conventional learning environment, e-learning can be a factor in changing the environment from brick to click. The Ministry of Education and organizations do not have to worry about building more concrete campuses to train and equip the working generation (Mat, 2000). With e-learning, the cost of infrastructure can be reduced tremendously from the millions required to build a campus to thousands to have a complete network infrastructure. In the past, learners had to spend much of their time and money to get to the physical campus for lectures. The learners can now access the campus from their home without much traveling and being away from their families. It cuts the learning time and cost. Thus, it encourages more organizations to supports e-learning education for their employees (Mat, 2000).

A survey conducted in 2004 (Asirvatham, Kaur, & Abas, 2005) showed that

The former Secretary-General of the Ministry of Education, Tan Sri Datuk Dr Johari Mat (Mat, 2000) explained that there are many benefits of e-learning in the Malaysian education system. First, e-learning provides more learning opportunities to adults who are no longer of the formal education age which ranges of from 17-25 years. This is supported by Galloway (2000) who stated that in the new education environment, the traditional 4-year degree of education has evolved into a 40-year degree to indicate a lifetime relationship between education and human beings. E-learning opens up a new platform for many adults who have been tied up with many commitments in life and enables them to learn anytime and anywhere they want at their convenience. Access to learning via the Internet has made geographical or physical constraints no longer a critical issue for adults to enroll in any course with any university where e-learning opportunities are available.
- Malaysia is moderately ready for e-learning,
- Malaysia is not environmentally ready,
- Malaysia is technically ready,
- Enablers are mostly ready, culturally,
- Learners are more ready for e-learning compared to the perception of their lecturers, and
- Malaysia is not seen as financially ready by providers and policy-makers.

Literature Review

The potential use of information technology in education and training, shares the very characteristics of information technology that businesses have used to gain competitive advantage and allow a range of productive improvements: the interactivity of computers, the distribution of information, the provision of analytical tools, the elimination of distance barriers, and, to a lesser extent, the replacement of repetitive tasks (Kim & Kim, 2006; Leidner & Jarvenpaa, 1993). This is supported by previous studies on teaching effectiveness which has identified that distance education is as effective as traditional on-campus approaches for delivering information (Choi et al., 2006; Dohner et al., 1985; Fraser, 1985; Jones & Timpson, 1991; Maloy & Perry, 1991; Saba, 2000; Sullivan & Osburn, 1990; Threlkeld & Brzoska, 1994).

There are a number of surveys that have been carried out to identify critical success factors in e-Learning. Webster and Hackley (1997) emphasized effectiveness, where they used student involvement and participation, cognitive engagement, technology self-efficacy and perceived usefulness of technology employed to measure effectiveness of E-learning. The reliability, quality, and medium richness were also key technological aspects considered in defining successful factors for E-learning (Sanders & Nagelhout, 1995). In a survey done by Volery and Lord (2000) in one online management course at an Australian university, they identified three critical success factors in online delivery: technology, instructor, and previous use of the technology from the student perspective. In addition to technology, which has been emphasized by some researchers, instructor attitudes toward students, instructor technical competence, and classroom interaction are also important (Dillon & Gunawardena, 1995).

A survey by Lim (2001) showed that computer self-efficacy is an important factor in adult learner’s satisfaction and intent to take future Web-based courses. Self-efficacy is affected by computer experiences and frequency of computer usage (Tarkzadeh & Koufteros, 1994). In addition, years of computer use, Internet experience in a class and academic self-concept also had a positive relationship with adult learner satisfaction in learning. With higher satisfaction levels, there will be greater opportunities of taking a web-based program in future. Therefore, we can conclude that these factors are important influencers in E-learning course enrolment for adult learners.

According to a study done by Hill, Lomas, and MacGregor (2003), the quality of the lecturer and the student support systems were the most influential factors in the provision of quality education. Their empirical research made use of focus groups involving a range of higher education students. Prior to this, Laudon and Laudon (1998) identified critical factors for successful implementation of E-learning programs: management support, user participation, degree of complexity and risk according to the new technologies, and role of project management in the implementation process. Le Blanc and Wands (2001) categorized the critical success factor for e-learning into three main groups: organizational, general, and cognitive.

Organizational factors include
- Technical infrastructure,
- Clearly defined change leadership strategy, and
- Management support for training

General factors include
- Adult learning principles,
- Clearly defined learning outcomes,
- Pretest option,
- Clearly defined learning pathways, and
- Assessment

Cognitive factors include
- Access to useful help facilities
- User control of screen information
- Simple user interface
- Access to presentation of complex information
- Appropriate use of multimedia
- Avoidance of redundant information

There are a number of studies that point out challenges and issues in implementing e-learning. Alexander and McKenzie (1998) reported that E-learning would fail for the following reasons:

- Being overly ambitious in terms of desired outcomes for the budget and time available.
- Utilizing particular information technologies for their own sake, without sufficient regard for appropriate learning design.
- No change in the assessment of learning to suit the changed learning outcomes.
• Commencing software development without adequate planning.
• Failure to prepare students for participation in learning experiences such as working in groups.
• Failure to obtain copyright clearance.

According to Parson (1997), much of the efforts to use the Web for teaching and learning have merely resulted in using Internet-based structure to deliver content. It has only changed traditional text to electronic text. Doherty (1998) also noted that the Internet would become passive learning technology if it were used to deliver traditional instructional materials without realizing its capabilities of facilitating communication and collaboration. Therefore, it is clear to see that Internet usage in education must be interactive and aggressive to benefit all parties.

According to Madhukar (2002), the Internet has positive influences on learning as it is a source of information, provides independent and individualized learning, gives in-depth understanding, and improves learners’ motivation. However, he also pointed out a few negative influences of the Internet on learning, which includes interfering with student concentration, being time consuming, presenting questionable resources, and increasing student dependency on Internet rather than application of knowledge. By comparing the pros and cons of the Internet as a tool for learning, he has provided some guidelines to consider making Internet learning effective:

• Monitor use of Internet in class.
• Identify beforehand lessons and/or activities that will necessitate use of the Internet. This will instil disciplined use of the Internet by the students.
• Provide Internet search guidelines and skills at the beginning of the course and bookmark important sites for students.
• Diversify instructional strategies with textbooks, group discussions, CDs and videos instead of focusing solely on the Internet.
• Discourage students from pirating on the Internet.

Mutula (2002) also identified several important issues and challenges in implementing E-learning. The most important challenge is the resources and infrastructure needed to support this new way of learning, which can be a constraint. Information network equipment, laboratories and bandwidth requirements fall under this category. The technology must be practically appraised to meet academic programs. The IT skills shortage is also likely to have negative impact on the Internet economy development. It is estimated that by the year 2010, the digital economy will have one billion Internet users, but the skills needed to sustain this growth will be lacking (Gordon, 2002).

Objectives

The main objective of this study is to identify the success factors in implementing an E-learning program in Malaysia. The study mainly focuses on eight criteria of success factors, which are (a) program content (Le Blanc & Wands, 2001), (b) Web page accessibility (Parson, 1997; Doherty, 1998), (c) learners’ participation and involvement (Webster & Hackley, 1997), (d) Web site security and support (Laudon & Laudon, 1998), (e) institution commitment (Laudon & Laudon, 1998), (f) interactive learning environment (MacDonald, Gabriel, & Cousins, 2000), (g) instructor competency (Volery & Lord, 2000), and (h) presentation and design (Harun & Yusof, 2001).

Method

Two forms of questionnaires were developed: paper-based and online. Both forms of questionnaires, which were identical in content, catered for general opinions, were distributed to the adults through researcher’s contacts. Respondents for the paper-based questionnaire were required to return the completed questionnaires before the deadline given. By doing this, the time required to wait for completion of questionnaire was controlled with the help from the researchers’ contacts, and a higher response rate within limited time frame was ensured. An online survey form was designed to reach adults who have frequent access to the Internet. The cost was reduced with this paperless contact and free hosting service from the Internet. The questionnaire was posted online and the link was sent by e-mail to adults through the researcher’s contacts. Both printed and online surveys were implemented by distributing questionnaires to a snowball sample of adults in public.

Interviews helped to gather wider opinions and in-depth information on E-learning programs in Malaysia. With the time allocated for interviews with staff from institutions of higher learning, fruitful discussion, and generous feedback were able to take place. Interviews were carried out with two main players in Malaysia’s E-learning programs: University Tun Abdul Razak and Open University Malaysia. Through the interviews, a clearer picture of current E-learning programs offered was seen. Furthermore, a deeper understanding of the programs implementation and public responses was obtained.
The data collected were analyzed based on mean, standard deviation, percentages, and frequencies using SPSS. The analyzed data were then synthesized and presented in tables, figures, and narrative forms. In the event of missing data or invalid answers, the questionnaire was considered void and not used in the analysis. This was to be consistent as the online survey could not be sent and was therefore considered invalid if there was even one question left unanswered.

Analysis and Discussion

Table 2 shows the mean score and standard deviation for each criterion. The criteria are arranged from the highest mean score to the lowest mean score. There were five criteria that received more than 4.0 mean score whereas the others there were less than 4.0. The five criteria that had above 4.0 mean score are program content, web page accessibility, learners’ participation and involvement, Web site security, and support and institution commitment. The other criteria that had mean score below 4.0 are interactive learning environment, instructor competency, and presentation and design. As all the mean scores were more than 3.5, it means all these criteria are important for E-learning implementation. They play vital parts in determining the success of an e-learning program.

Program content has the highest mean score at 4.32. This may imply that respondents were very concerned of the program content in e-learning implementation. It is important to have clear program content presented to help in the learning process. At the lowest end was the presentation and design criterion. Respondents have put it with lower importance compared to the other criteria.

Program Content

Program content has the highest mean score among all the criteria. From Table 3, we can see that there were 45.1% of respondents who made it a top priority criterion in an E-learning program implementation. Another 42% also felt it is a very important criterion. None of the respondents felt it is not important at all. Hence, we can conclude that all respondents in this survey have a common opinion that program content is a critical success factor in E-learning implementation. The reason why program content is so critical to the respondents could be due to the fact that adult learners know what they want to learn from a program. MacDonald, Gabriel, and Cousins (2000) have commented that adult learners are more independent with much experience; therefore, the expectation on programs is much higher than young learners. If the program content which includes the syllabus, scope of study and learning methodologies cannot satisfy the adults, it may be considered as an unsuccessful program.

Web Page Accessibility

None of the respondents thought that web page accessibility is not important. Results are shown in Table 4. The highest percentage was found in the “very important” category at 48.4%. Web page accessibility is crucial as the learning process has to take place through the Internet. Without an easily accessible web page, learner will easily lose their patience and find this learning method becoming less convenient for them. One of the benefits for E-learning is to provide a fast and easy to learning environment. Learners will definitely evaluate this benefit based on their experience interacting with the web page. Therefore, E-learning providers have to ensure their web pages are easily accessible at all times anywhere.

Learner’s Participation and Involvement

As reported by MacDonald et al. (2000), effective group discussion is very important in e-learning. In order to have that, learners’ participation and involvement is very important. Therefore, this criterion was also tested to gauge the respondents’ perception on the importance of learner participation and involvement. Table 5 presents the results.

More than 75% of respondents rated it as very important or top priority. None of the respondents felt it is not important. This implies that respondents generally think learner’s participation and involvement are critical success factors in E-learning program implementation. Since E-learning is a self-learning method, learners should have active participation and involvement to help them learn effectively.

Web Site Security and Support

Web site security and support includes the issue of how safe is the online learning place and how fast the learners are supported by the web site administrator. An unsafe web site may cause the assignments posted by learners or notes posted by instructors to get lost. Problems faced by learners during the learning process must be supported proactively by the administrator or else, the learners might lose their interest and patience to learn. Therefore, a majority of respondents (42.6%) felt this criterion is very important in an E-learning program implementation. Some respondents (31.5%) have even put it as top priority. This criterion can be considered as a highly critical success factor (see Table 6).
Table 2
E-learning’s Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Mean</th>
<th>Standard Deviation</th>
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</thead>
<tbody>
<tr>
<td>Program content</td>
<td>4.32</td>
<td>0.693</td>
</tr>
<tr>
<td>Web page accessibility</td>
<td>4.14</td>
<td>0.755</td>
</tr>
<tr>
<td>Learner’s participation and involvement</td>
<td>4.10</td>
<td>0.858</td>
</tr>
<tr>
<td>Web site security and support</td>
<td>4.02</td>
<td>0.838</td>
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<tr>
<td>Institution commitment</td>
<td>4.02</td>
<td>0.909</td>
</tr>
<tr>
<td>Interactive learning environment</td>
<td>3.86</td>
<td>0.929</td>
</tr>
<tr>
<td>Instructor competency</td>
<td>3.68</td>
<td>0.963</td>
</tr>
<tr>
<td>Presentation and design</td>
<td>3.60</td>
<td>0.880</td>
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</table>

Table 3
Program Content

<table>
<thead>
<tr>
<th>Importance</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important</td>
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<td>0.0</td>
</tr>
<tr>
<td>Less important</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Important</td>
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<td>42.0</td>
</tr>
<tr>
<td>Very important</td>
<td>73</td>
<td>45.1</td>
</tr>
<tr>
<td>Top priority</td>
<td>162</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4
Web Page Accessibility

<table>
<thead>
<tr>
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<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
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<td>2.5</td>
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<tr>
<td>Important</td>
<td>24</td>
<td>14.8</td>
</tr>
<tr>
<td>Very important</td>
<td>79</td>
<td>48.8</td>
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<tr>
<td>Top priority</td>
<td>55</td>
<td>34.0</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 5
Participation and Involvement

<table>
<thead>
<tr>
<th>Importance</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Less important</td>
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<td>3.7</td>
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<tr>
<td>Important</td>
<td>34</td>
<td>21.0</td>
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<tr>
<td>Very important</td>
<td>60</td>
<td>37.0</td>
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<td>Top priority</td>
<td>62</td>
<td>38.3</td>
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<tr>
<td>Total</td>
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</table>

Table 6
Web site Security and Support

<table>
<thead>
<tr>
<th>Importance</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Less important</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Important</td>
<td>37</td>
<td>22.8</td>
</tr>
<tr>
<td>Very important</td>
<td>69</td>
<td>42.6</td>
</tr>
<tr>
<td>Top priority</td>
<td>51</td>
<td>31.5</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Institution Commitment

Institution commitment measures the efforts and credibility of an institution in providing E-learning programs. There are many institutions promoting their E-learning programs today with different motivations and strategies. If the institution does not have the right perspectives of E-learning, it will fail to give full commitment in helping the e-learners to gain the knowledge they want. Respondents in this survey gave very high priority for institution commitment. More than 70% of respondents felt it is a very important or top priority criterion in measuring the success of an E-learning program. The results support Henry’s (2001) theory. He emphasized that E-learning requires the same management commitment as other mission-critical organization-wide initiatives. The management in an institution providing E-learning program must offer quick assistance to learners whenever is needed and has continuous improvement in mind to upgrade the program quality (see Table 7).

Interactive Learning Environment

As E-learning programs do not require learners to attend any scheduled classroom lectures, learners may not have the opportunity to experience campus learning. Therefore, interactive learning environment through electronic communication was considered very important. The result is shown in Table 8. 35.8% respondents placed it in the “very important” category while 29% of respondents felt it is a “top priority” criteria.
Instructor Competency

There were 34.6% respondents who chose the “very important” scale for instructor competency. This is the highest percentage among the other scales. Generally, the respondents felt instructor competency is important in implementing an E-learning program. The reason could be because the learning materials and the course organization highly depend on instructor. Without a good and competent instructor, learners may easily lose interest in their self-learning schedule. Only 15 respondents did not think it is an important criterion (see Table 9).

Presentation and Design

Comparatively, presentation and design criterion had more respondents placed in “important” category (38.3%) than “very important” category (35.2%). This can imply that respondents had higher endurance level for presentation and design. However, none of the respondents felt it is not important as shown in Table 10.

In an E-learning program implementation, presentation and design should include the web presentation of notes, lectures, and other materials. It is not necessary to have very sophisticated presentation and design, but the message each material presents must be clear and understood by the learners. This criterion might not be very critical for the successful implementation of E-learning program but it is an important factor to help learners’ learns easily.

Conclusion

All the criteria were deemed important to the respondents. With the responses and findings from survey, they can assist institutions in deciding which factors should be given higher priority and which criterion has lesser importance. Five criteria (program content, Web page accessibility, learner’s participation and involvement, Web site security and support, and institution commitment) had a mean score of more than 4.0 while the rest were below 4.0 (interactive learning environment, instructor competency, and presentation and design).

During the first years of using the Internet and ICT, most of the E-learning projects, even those aiming to design learning processes, were focused on technical innovation to create technology based learning environments. There would appear to have been a change in thinking on E-learning in the past three to four years, with a new focus on discussions on E-learning. Rather than the emphasis on technology, the new focus of thinking on E-learning is increasingly on the learner him/herself and on methodologies and didactics. This is seen as more important in developing the quality of E-learning provision and ensuring the success of ICT supported learning processes (BIBB, 2003; Hamburg, Lindecke, & Terstriepe, 2005). The transformational impact of blended and fully online delivery methods on learning is only now beginning to be felt, and will only spread further as more organizations experiment and learn from their successes and failures. The fact that effective models for delivering instruction online to global audiences have been developed and can be improved upon will fuel this expansion (Brennan, 2004).

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Empowering Students to Think Deeply, Discuss Engagingly, and Write Definitively in the University Classroom

Ann Singleton and Kenneth Newman
Union University

A typical college classroom is often pictured with the professor talking for several hours while students frantically try to write down everything that is said. This type of classroom has traditionally produced surface learning and has done little to promote learning that lasts. Do university classrooms have to be professor driven? Can university classrooms become engaging and facilitate student learning? What does a learner-centered classroom look like at the university level? The authors of this paper will explore effective strategies for making this shift to learner-centered university classrooms. Strategies include the use of an essential question for a course, a taxonomy of comprehension for class discussion, and writing activities. Specific university classroom examples are included.

Comprehension Strategies

Empowering students to think deeply about the concepts and skills inherent to a particular discipline is a daunting task. Professors have spent years building their own understanding of the foundational concepts of their disciplines. Add to that process a continuous and singular focus on how these foundational concepts drive the body of knowledge surrounding a discipline. As the professor’s learning continues, a more complete understanding and clarity of the related concepts are ferreted out with more intricate and subtle connections. How can professors, within one course, enable students to move past the surface knowledge of a discipline?

The organizational schemata of course information can make a difference in the way students approach their learning. For example, the use of essential questions to frame a course can facilitate students’ ability to place meaning on what otherwise may be perceived as unconnected facts (Elder & Paul, 2002). Using essential questions emphasizes the process of thinking for the student rather than just answering questions. These questions have no singular correct answer and are often provocative, seen as inspirational rather than perfunctory.

Every discipline can utilize this process of essential questions to support learning as students move from surface learning of factual information to a more meaningful understanding of the important concepts of the discipline. For example, when teaching an American History course an essential question could be, “Would you rather be an immigrant in 1890 or 1990 and why?” Using this question does not change the factual information that is taught. It only requires that students become more involved with the facts as they consider how the information they are learning could be relevant to them, making this information seem essential. As previously stated, any discipline can be taught using essential questions, thereby, facilitating the student’s ability to put course content into a relevant context.

In addition to assisting students as they attempt to see course information as meaningful, essential questions also can provide students a relevant focus for a discipline that they may not feel confident in or perhaps have had a bad experience with in the past. One such content, unfortunately, that some students may have had unsuccessful experiences in understanding is mathematics.

As a professor of an elementary mathematics methods course, I have experienced the anxiety and tension that some students associate with mathematics. Even though this issue was addressed in a supportive and upbeat manner at the beginning of the course each semester, some students in my class found the course extremely difficult. However, when the entire course
was put into the context of “How can I show my students this mathematical concept?” rather than the traditional “How can I teach my students this mathematical concept?”, the students began to shift their focus. Rather than worrying about the steps of a mathematical procedure, they began to find models that demonstrated the concept.

With this new focus, students were using more descriptive language that described the concept as well as using clarifying models. The students’ confidence levels increased in addition to their levels of competence in their mathematics pedagogy. The significant way that the class had changed was the addition of an essential question. The same examples and explanations were used as well as the same activities and tests. However, with the inclusion of an essential question, the students’ learning was more evident on test answers and classroom discussion.

Discussion Strategies

Classroom discussion in university classrooms can be enhanced with the use of planned questions. Regardless of the specific discipline, these planned questions can move students from a basic level of understanding of a concept to higher levels of thinking. A taxonomy of comprehension can be used to facilitate this process of thinking deeply about course content. One prominent taxonomy of comprehension is attributed to Benjamin Bloom (1956). Bloom identified six levels of thinking: (a) knowledge, (b) comprehension, (c) application, (d) analysis, (e) synthesis, and (f) evaluation. Planning discussion questions that help students move through these different levels of understanding will provide students with appropriate prompts to discuss issues from an interested and thought provoking position rather than a less involved “I know that answer, let’s move on” point of view.

The inclusion of questions requiring higher order thinking is not reserved for courses that involve reading and interpreting literature. Even in an elementary mathematics methods course, students can be asked questions that require different levels of understanding. The following prompts/questions are examples representing different levels of understanding the mathematical concept of the addition of decimal numbers.

Knowledge Level
- Using grid paper, explain 2.36 added to 2.64.

Comprehension Level
- How does this problem support your knowledge of place value?

Application Level
- Explain the addition problem of 2.36 and 2.64 as it relates to the monetary system used in the United States?

Analysis Level
- What other models could be used to demonstrate 2.36 + 2.64?

Synthesize
- How does the process used to add 2.36 and 2.64 support the process used to add whole numbers? Fractions?

Evaluation
- Explain which model you plan to use to introduce decimals to your students.

These same categories of questions can be used in any discipline to ensure that students understand the important concepts, which can result in rich classroom discussion. As students are involved in answering the kinds of questions that require higher levels of thinking, additional strategies may be used to continue the discussion. These strategies include asking students other than the one answering the question to (a) elaborate on a student’s response, (b) offer an opposing view to a response, (c) summarize another student’s response, (d) clarify the logical rationale, (e) explain how the student’s response supports the essential question for the course, and (f) explicate how the student’s response empowers the student. Using these strategies can make the difference between a potentially dull exchange of information between students and professors and an exciting dialogue among all class members in any discipline.

Writing Strategies

A popular cartoon depicts one character saying to another character that she would like him to write a theme for her. The second character indicates that if she wants to learn, she will write it herself. At that point, the first character exclaims in surprise, “Learn!”

Yes, one does learn through writing. However, all writing to learn assignments do not have to be the traditional theme, essay, or research paper, which are so common in college classrooms. Brief writing activities can be interspersed throughout a class session to ensure that reflection, or information processing, is taking place.

One example of this type writing is journal writing, which can take many different forms according to both the content area and the professor’s goals. Journaling can take the form of reading journals,
learning logs, or reflective journals. According to Wyrick (1996), journals help students confront fears of writing and help them “conquer” the blank page. Wyrick also maintains that journals help improve powers of observation, which the reading journal or learning log can easily do. Journals may also help students prepare for class and focus on a problem, or the essential question, posed by the assignment or class activities. Reflective journaling is especially effective in classes that meet longer than one hour. For instance, in four hour classes, the professor might pause several times for students to reflect, or process, information that might extend over an hour or so. Reflective journaling might also be used to transition from one topic to another during longer class sessions.

Another brief writing strategy, which may also serve as an assessment piece, is the Ticket to Leave, also known as an Exit Slip. At the end of the class session, each student is given a 3x5 index card and is asked perhaps two questions—one concerning learning (essential information) of the day, and the other asking what question or questions still remain. This is, indeed, the students’ ticket to leave class. Variations include using sticky notes and placing them on the wall or door as they leave. Very quickly, the professor can sift through these cards and assess what learning took place, and if the essential information from that class session was learned. The professor also knows what direction the next class needs to take based on the questions students still have.

A variation of the Exit Slip is the Minute Paper. Students may use their own paper for this writing activity, which asks two similar questions, phrased however best suits the content area or the professor’s objectives. A half-sheet of paper is less intimidating than a full blank page. It also saves the professor time as he/she reads quickly for this informal assessment of both students and the professor’s own teaching objectives.

A longer writing assignment can take the form of a RAFT paper, a creative outlet for demonstrating understanding. RAFT stands for Role (what is the writer’s role: reporter, critic, observer, eyewitness?), Audience (who will be reading the writing?), Format (what form will the writer use: letter, article, report, poem?), and Topic + strong verb (who or what is the subject of this writing?). This strategy allows the writer to approach the topic from several different perspectives as well as an opportunity to write to someone (or something) other than the professor. Not only will it show knowledge of the topic, but it also will allow some creativity. One example of a RAFT writing assignment comes from a science professor, who designed this writing assignment: “You are a drop of rain which falls into the Mississippi River in upper Minnesota. You travel the length of the Mississippi to New Orleans. Tell your story to the New Orleans Picayune.”

The amount of higher order learning required for this assignment is astounding. It requires the requisite factual knowledge, but also runs the gamut of Bloom’s Taxonomy. Plus, a more creative means of expository writing just might result in better student writing as well as a better score on a test.

Yet another brief writing activity, which also elicits essential information being taught, is The Important Thing. Modeled after Margaret Wise Brown’s (1949) The Important Book, a children’s picture book, students write several facts about a topic, and then they use the higher order thinking skills of analysis and evaluation to determine the most important fact about the topic being studied. This strategy requires the professor having a copy of this children’s book, reading it to the students, and having them model Brown’s style. Once again, creativity occurs in the content area college classroom.

Each of the writing strategies presented can easily be done within a class period, require higher order thinking, are to one degree or another creative, and serve as informal assessment pieces. The RAFT may also be a homework assignment and may become a more formal assessment, as desired. The brevity of the strategies is advantageous to a busy professor’s already crowded work load, for each may be quickly read. Furthermore, frequent writing activities allow the professor to get to know the students by seeing how they think and process information. These writing activities also help to create a community of writers and learners, which are important goals of the college classroom.

The above strategies are best utilized when they are woven throughout a class session. For example, a reflective journal entry can be used to access students’ prior knowledge about the day’s topic. In addition, a reflective journal entry can be used during the class discussion to clarify the lesson’s concept or used as a class closing activity as a means to verify the students’ understanding of the essential information presented. Other writing strategies, such as the Minute Paper and Ticket to Leave, can also be used as closing activities that offer the student an opportunity to use higher levels of thinking that ensure the content presented is processed as meaningful information. Discussion strategies can be utilized at strategic times during a class to ensure that students not only know and understand the concepts presented, but that students also can apply, synthesize, and evaluate information for use in long term projects, thus resulting in deeper, more lasting learning.

Increased student learning as a result of using the strategies discussed in this article are evident as professors observe students taking ownership of
course content. Rich discussion with students expressing themselves passionately can become the expectation of class rather than a surprise. Course projects and activities can become more meaningful. Perhaps students will even express their appreciation as professors plan classes that empower students to think deeply, discuss engagingly, and write definitively in the university classroom.

References


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The article intends to simplify the different aspects of podcasting. The article covers types of podcasts; the pedagogical benefits of podcasting; the connection between theory and podcasting; answers to questions, queries, and apprehensions. Before trying out a new tool, it is important to understand why we do things the way we do. A crucial part of using any tool or technology is to understand, test, and determine the pedagogical appropriateness of it for specific context. Through the article, the author has tried to suggest some of the uses of podcasting along with the pedagogical appropriateness in different scenarios. At the end, the author has tried to (through pictorial representation) describe the podcasting community and the tasks performed by the community members. Also, through a pictorial representation, the author has provided a gist of the podcasting creation process as a producer and as a consumer.

Podcasting is the hottest topic in the training industry, including the educational as well as corporate sectors. With this new tool in the market, different groups of people have emerged – Naïve, Inquisitives, Beginners/First-timers, Experimenters, Enthusiasts, Intermediates, Experts, and Critiques. Often, the term “podcasting” overwhelms many people, especially who plan to or who try it out for the first time. The process of podcasting can also frustrate people if podcasting does not work the way they expected it to work. The first-timers, naives, beginners can refer to the article to get an overview of the podcasting process. The group of experimenters, intermediates, and enthusiasts might refer to the article to deepen their knowledge about podcasting. The group of experts and critiques might want to skim through the article to find solutions to the questions or queries on which they have been mulling over for a long time. Many people are exploiting podcasting (medium of entertainment) for education. There are different factors driving people’s attention toward podcasting.

Social Software

Learning is a social process. The medium of learning has transformed from face-to-face to e-learning to c-learning (communicative learning, collaborative learning, constructivist learning, or community learning). The three most important things in c-learning are interaction, social feedback, and social networking. Today’s competitive world requires us to provide resources and inculcate skills that will help today’s generation to keep up with the rapid growing technological world and to continue learning throughout their lives. The questions we should ask ourselves are, “What do today’s learners want? How do they want the learning to occur? What are the best ways to teach today’s young generation?” Learning is a process of rich and diverse experiences that are possible through collaboration and interaction with as many people as possible. How do young people learn? Young people want hands-on experience, action, interaction, identity in cyberculture, and connectivity with the world. They want a change in the role from consumers to producers. They want learning to be a social process. To enable social learning, educators are coming up with the ideas of social software. Podcasts, blogs, and wikis fall under the category of social software. The term “social software” came into use in 2002. The use of this term is credited to Clay Shirky, who defined social software as “software that supports group interaction” (as cited in Owen, Grant, Sayers, & Facer, 2006, p. 12). According to Owen et al., (2006), social software and the changing goals of education seem to be moving in the same direction (p. 12). There is a growing trend of digital culture in the current generation of learners. The time is not far away when young learners will be taught B for Blogs, I for iPod, M for MSN, G for Google, P for Podcasting, W for Wikis, and Y for Yahoo! Integration of technology in education and as a part of their lives is a cultural phenomenon where these fragmented learners want continuous connectivity with the world and on-demand content at their “computer-step.”

Podcasting Definition

Podcasting – a simple process of disseminating audio content – tends to overwhelm many first time users. Wikipedia (2007) defines Podcasting, as “a portmanteau of Apple's 'iPod' and 'broadcasting', a method of publishing files to the Internet, allowing users to subscribe to a feed and receive new files automatically by subscription, usually at no cost.” I define podcasting as, Providing on-demand content at a student’s desktop in the net generation. Podcasting is an optimum way of using the music devices, especially mp3 players, for the purpose of education. Earlier mp3 players symbolized activities such as Listen and Enjoy! Now, they symbolize activities such as Listen, Enjoy,
and Learn! Podcasting, an amalgamation of two words - iPod and Broadcasting has spread rapidly in the field of education throughout the world. There are a myriad uses of podcasting – ranging from the uses in corporate world to uses in the academic world. People are using podcasting in as many areas as possible; where there is audio, there is podcasting. Podcasting is a simple process of capturing human voice, uploading it online, and sharing it with the whole world. In today’s education system, educators are trying to create a community-based, collaborative learning environment as opposed to narrowcasting learning to a single learner. The New Oxford American Dictionary entitled “Podcast” as the Word of the Year for 2005 (MacDailyNews, 2005). A podcasting process involves the following:

- **Thinking** about a topic to podcast
- **Creating** a podcast
  - Recording podcast episodes (mp3 format)
  - Uploading the podcast episodes on a webpage
- **Creating** an RSS feed for the podcast
- **Subscribing** to the podcast
- **Listening** to the podcast
  - Downloading the podcast
  - Transferring the podcast to an mp3 player

Pedagogical Benefits of Podcasting

*Why Should I Get into this Complex Process of Podcasting?*

Audio plays a very important role in the learning process. Audio has a few characteristics that text lack. Audio can have a significant impact on understanding of some information. Often, we understand better in a face-to-face lecture than when we read the same content on our own. According to Clark and Walsh, “listening is instinctual, [whereas] reading and writing are not” (as cited in Chan and Lee, 2005, p. 62). Frequency modulation in human voice has an advantage over text when conveying any information. Audio is powerful mode to communicate information – it can add a flavor to information; however, audio does have some drawbacks. Too much of information in an audio format might tend to distract the listener’s attention and interest. According to the Scottish Council for Educational Technology, audio is an extremely powerful medium for conveying feelings, attitudes and atmosphere, and less powerful for conveying detail and facts. From a 30-minute audio tape, one will remember general opinions and arguments and not very many facts and figures (as cited in Chan and Lee, 2005). Podcasting encapsulates the power of audio. Durbridge identified audio’s educational advantages as its ability to influence cognition through clarity of instructions and emotional aspects of learning by conveying immediacy and a connection with the teacher (as cited in Edirisingha, 2006). Hargis and Wilson (n.d.) relate the concept of podcasting to information processing and conceptual learning. According to them, a podcast (a collection of real, raw, and spontaneous ideas) captures the attention of the listener and can sustain this attention to transfer the concepts into the long term memory. Also, the podcast creation process facilitates self-correcting of ideas and concepts. The hype of the iPod has spread to such an extent that it has become a social symbol to have an iPod. For educators this can be an advantage – students already use these mp3 players – educators can ask them to use it for the purpose of education. According to Clark and Walsh, listening to an mp3 player in public is “socially acceptable” – today’s modern young learners (who may be impatient with traditional forms of teaching and learning) like these devices that have a consumer appeal (ac cited in Chan and Lee, 2005). According to Raath and Zhang (2006), podcasting is a knowledge distribution model and represents useful knowledge management artifacts.

Podcasting can serve as a learning strategy for the auditory learners. In this fast-growing technological world, it is very important to provide information to the students in different formats and to offer different dimensions of learning. Kolb’s experiential learning circle outlines four phases highlighting four different abilities: concrete experience, reflective observations, abstract conceptualization, and active experimentation. Based on these activities, Kolb suggests four types of learning styles: (a) converger, (b) diverger, (c) assimilator, and (d) accommodator (Smith, 2001). Now, let us see how and where the process of podcasting can fit in.

According to Kolb’s experiential learning cycle, based on the immediate and concrete experiences, the learner provides reflections and observations. These reflective observations and thinking serve as a foundation for abstract conceptualization. These abstract concepts drive learners’ further actions in a new situation and thus create new experiences. As a consumer, listening to a podcast is a concrete experience after which the listener makes observations and reflections. These reflections facilitate strengthening of his/her learning and understanding. In this process, the learner might form abstract concepts which might drive further actions in his/her learning. As a producer, in the podcast creation process, the learner creates a podcast (concrete experience); then reflects on the podcast created (reflective observations) – in terms of concepts learnt; then mulls over the options for improvement (abstract conceptualization); and then takes steps for improvements in learning (active experimentation). According to the VARK
Podcasting works on a subscription model driven by the RSS feeds. The concept of subscription model comes from subscription of a magazine. Based on our interest, we subscribe to magazines of our choice; we need to subscribe to different magazines if we have varied interests. Often, the information in the magazine might not be relevant to us or only half of the information is relevant to us, so we wait for the next copy of the magazine to arrive. Instead, with podcasts, you can subscribe to podcasts that are of interest to you. In addition, you can subscribe to as many podcasts as you want for free. This way you can get relevant information from varied sources. This on-demand delivery of information is possible because of the subscription model; RSS feeds fetch up relevant and up-to-date information for us from the Web sites to which we subscribe. The essence of podcasting is RSS (Really Simple Syndication). RSS feed is a simple code, written in XML, which is used to tag your podcast. This helps to provide immediate notifications of updates. Whenever you update your Web site with new content, the users subscribed to your Web site will get an immediate notification of the updates, without even having to visit your Web site. The use of the RSS technique saves time and effort required to search for information. If I am interested in getting information from multiple web sites (for instance, from a news web site, from an educational technology web site, and from a technology web site), I just need to subscribe to these web sites and I will get updated information from each web site at one spot. This way, I do not have to visit these web sites everyday and check for updates. This would save my effort and time to search for relevant information.

Types of Podcasts

There are different types of podcasts - public podcasts, personal podcasts, and professional podcasts (educational or corporate). Podcasts can also be classified by the format of content – basic podcasts, enhanced podcasts, and video podcasts. Public podcasts are generic podcasts and are simple to use and easy to understand. You can create a public podcast to disseminate information that you would like to share with the world. You can also subscribe to different public podcasts. Mostly, podcasts are for use for everyone; however, you can narrow your listeners to your friends, family, and colleagues. Personal and professional podcasts are more diverse as compared to the public podcasts, therefore it is important to understand them in detail.

You can create a personal podcast and share your experiences with your family and friends. You can record the special occasions – birthdays, parties, anniversaries, and wedding ceremonies – and make it available for others. Personal podcasting is similar to sharing your photo album; instead it is in the audio format. You can also create video podcasts. You can shoot the videos of the special occasions (which you often do using your digital camera) and share it with others. After you have recorded your experiences – in audio or video format – you can upload the files using a free web-based service such as Edublogs or Podomatic. If your family members and friends have subscribed to your podcast, they will be immediately notified of the new files uploaded on your webpage. You do not have to even inform them! An audio or a video podcast will add emotions and feelings to experiences that a picture would not be able to. So next time when you are on your vacation enjoying lovely beaches of Florida or snow in Canada, remember to record your experiences. It would be like maintaining a digital audio diary of the trip. If you do not prefer outdoor activities, you can record indoor activities – you can spend some time recording stories with your children; start a home-made podcast show on story telling and record the stories.
If you do not want a personal podcast, you can create a professional one. A professional podcast could be an educational podcast or a corporate podcast. If you are working in an educational institution, you get a chance to exploit podcasting (a medium of entertainment) for the purpose of education. In an educational institution, you can create podcasts at different levels – a class podcast, an instructor podcast, a student podcast, a department podcast, or an institute podcast. If you plan to create a class podcast, you can ask the students to contribute their knowledge via podcasts. The students can record an event, their experiences in real-life, or anything they want to share with the class. You can create your podcast for the class to disseminate extra information that you cannot cover in the class (such as useful tips, help with assignments, project guidelines, feedback, motivational quotes, and so on). You or the students can also podcast an interview of the expert/guest speaker. Your students can maintain their own podcast and share information relevant to the class – you can also grade this activity. Podcasting is the best way to disseminate instantly captured information. Instant recording of experiences – field trips, events, occasions, tours – can be a wonderful learning resource for the students. How can podcasting help in the classroom? Podcasting is one more format for content delivery. Students who miss the lectures can refer to the podcasted lecture. Podcasted lectures might prove helpful for slow learners and learners with English as Second Language to comprehend information in their own pace. Also, English-language learners can use the podcasted lectures of some other language to learn a new language. By providing podcasted lectures, you can prevent note-taking from becoming a speed-writing test. If the learners know in advance that they will receive a podcasted lecture, they can use the face-to-face session for more productive purposes such as for discussions and knowledge sharing. This way, you can deliver more content in a short period of time. Also, while taking notes, if the learners miss some information, they can refer to the podcasted lecture.

So, if I record a lecture, will that become a podcast? The answer is “No.” A recorded lecture will not become a podcast. It will become a podcast when you host it on your web site, continue hosting lectures to it, and when your students subscribe to your web site. Students can listen to the lecture podcasts for revising the content. It will help to reinforce their learning. By using podcasts as a medium of learning, you can exploit the power of audio for education – research shows that audio content facilitates memory retention three times more as compared to text. The audio power of podcasting – intonation, expression in voice – conveys a message direct to the listener’s heart/brain compared to text. You can add a personal touch (emotions, feelings, tone variations) to your message through audio, that you will not be able to in a textual message. Learning material disseminated as podcasts would prove extremely beneficial for the learners with reading disabilities. A class podcast might turn out to be a useful learning object that you can use later in your classes. An instructor podcast or a class podcast can be useful in language learning. Podcasts can be very helpful for computer science classes, where you or the students can create podcasts to narrate the steps to use software or to write a code. Other students can then listen to these audio guided instructions when performing the task. At a department level, each department can maintain a podcast and provide information to students and faculties. Also, instead of newsletters, departments can have audio podcasts to convey the information. A journalism department can ask other departments to contribute to their publications (audio weekly newsletters). At an institutional level, a podcast can be used to disseminate general information such as university news, school news, announcements, updates, advertisements, alumni talks and tips, and so on.

In schools or universities, the process of creating and maintaining a podcast can be deployed to different departments as part of an assignment. For instance, the students from the educational technology or education department can be involved in the ideation process (coming out with a pedagogically apt idea); the students from the journalism/communication department can script the podcast; the students from the media/production department can record/edit the podcasts; the students from the music department can create music samples that can be used to enhance the podcasts; the students from the music department can create music samples that can be used to enhance the podcasts; the students from the music department can create music samples that can be used to enhance the podcasts; the students from the music department can create music samples that can be used to enhance the podcasts; the students from the Information technology (IT) department can maintain the podcasts. There are many applications of podcasting in education – it is just a matter of your imagination.

There have been many projects and pilot studies going on to try out podcasting. Through a pilot study, Chan and Lee (2005) at the Charles Sturt University investigated the application of podcasting to address the preconceptions and anxiety that first year students bring to the class. In this study, the students viewed podcasting activity as a form of experiential learning that yielded positive gains for them in terms of technical and generic skills (as cited in Lee, Chan, and McLoughlin, 2006). Another example is of a large iPod project carried out at Duke University in which 1,650 iPods were given to the freshmen in the Fall 2004; this project attracted and excited many students, attracted media attention, and made many upperclassmen and professors angry. William Lynch (director of Drexel’s education program) thinks that it is natural to test the use of iPods for educational purpose, when the students have been using iPods for the entertainment purpose (as
cited in Read, 2005). There are many educational institutions – schools and universities – testing the pedagogical benefits of podcasting. Your institution can also start with a pilot project to determine the benefits of podcasting for your institute and your students. However, unlike many universities who are using iPod and collaborating with iTunes for their projects, you can start with a cheap microphone and headphones.

In addition to offering benefits to the education sector, podcasting has something to offer to the corporate sector. In the article, “Reaching Employees Through Podcasting,” Edelman (2005) mentions a few reasons to use podcasting in the corporate sector. The article also outlines a few considerations employers should keep in mind when planning to use podcasting as a tool for learning. Podcasting is being immensely used in the corporate sector. It is in high-demand in two areas: employee training and marketing. In this fast-paced, competitive world, organizations want productivity. Cost effective, good quality product or service is what the clients/customers and organizations want. In a tight schedule to meet the client requirements it becomes difficult to keep abreast with new technologies or information. Arranging a meeting or a training session for the employees is not only costly but also difficult when it comes to getting a common date and time. In a situation where employees do not want to stay for extra time after work for training and where employers want their employees to keep abreast with the fast-paced world, podcasting offers a mutual solution. The organization can disseminate training material in the form of a podcast. This way, employees can listen to the podcast when driving home, or to work, when in the gym, or in their leisure time. One could argue that this can be another way that the employer can ask employees to work extra hours (from home). In this highly competitive world, employees have to be up-to-date to progress, and by listening to the audio podcasts they can save time in traveling to training classes or they can avoid late hours at work. Podcasting can be very handy for sales representatives or the troubleshooting staff who have to remember tons of information about the product or the service. Listening to the podcasts before meeting the client/customer can serve as a revision for the sales representatives; it can also remind them of some crucial information they might miss. The troubleshooting staff can refer to the podcasts (audio-guided instructions) to efficiently serve the customer. Organizations can also create audio product manuals for their customers. By referring to these audio product manuals, customers can listen to the instructions as they work with the product. Organizations can also podcast regular customer/client feedback and tips/quick help for the consumers. Podcasting can also be used as an efficient marketing tool in this competitive world. By being there when the customers need you, you can form a great impact and become one of the efficient customer-centered organizations. General Motors is pioneering an innovative blog and podcasts “FastLane Blog” (available at http://fastlane.gmblogs.com/) maintained by its vice chairman, Bob Lutz. The designers provide the information about the new car model using podcasts and blogs to the opinion leaders and employees (as cited in Learning Circuits, 2005, p. 3). Similarly, you can also podcast interviews and talks direct from the designers or the developers of the product and make it available for your staff and customers.

Questions, Queries, and Apprehensions

At this point, do you have any arguments, thoughts, and queries related to podcasting in your mind that are making you question the author? Before you do that, you might want to skim through the following points that might answer a few of your queries or might induce more queries in your mind.

- **Assessment/evaluation methodologies** – Various aspects of podcasting can be evaluated based on the concept and context it is used in. There are many rubrics available on the web that can be used for creating your own rubric. The following main points can also be referred to when creating a rubric. A podcast can be evaluated for different aspects: for the podcast creation process, for using podcasting pedagogically, for the podcast content, and so on. (see Table 1 for rubric)

- **Plagiarism and copyright issues** – Plagiarism and copyright issues have always been and will always be a matter of concern for educators; however, it becomes more crucial in the online world where information is publicly available. We know that light travels faster than sound, but did we ever think that information travels faster than light? Once the information is uploaded on the web, it is available for people around the world. Isn’t that faster than the speed of light? There are a few considerations to keep in mind when choosing podcasting as a mode of information delivery.
  - **Pseudo name:** If students or children are creating a podcast (especially young learners) ask them use a fake identity – a virtual name; ask the students or children to never let their identity leak out (the students should not mention their real name, address, and so on).
Table 1
Rubric for Podcasts

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Enthusiastic</th>
<th>Clear tone</th>
<th>Uses expressions to entice interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Relevant</td>
<td>Useful</td>
<td>Interesting to users</td>
</tr>
<tr>
<td>Delivery</td>
<td>Logical/ well organized (begins with introduction and ends with a conclusion)</td>
<td>Smooth flow</td>
<td>Interesting</td>
</tr>
<tr>
<td></td>
<td>Effective use of music</td>
<td>Supplemented with script</td>
<td>No fillers in speech</td>
</tr>
<tr>
<td></td>
<td>Personified delivery</td>
<td>Appropriate podcast length/duration</td>
<td>Easy RSS subscription</td>
</tr>
<tr>
<td>Process</td>
<td>Adherence to process</td>
<td>Adherence to copyright guidelines</td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>Objectives met</td>
<td>Educational</td>
<td>Idea</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>Innovative</td>
<td>Creative</td>
<td>Productive</td>
</tr>
<tr>
<td>Output/Outcomes</td>
<td>Feelings of users (podcast boring, interesting, useful, excellent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Users want more podcasts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Permissible sound/music**: If sound effects or music is used in the podcast, make sure to seek permission from the creator or use copyright-free music. Also, ask the students to show a proof that the music/sound is copyright-free or the permission of the creator has been acquired.

- **Source content**: If a podcast is a narration of some content from a different source (such as a book, or a web site), ensure to mention the source used. Also, seek the permission of the author for converting the content into a podcast. You can also refer to the Podcasting Legal Guide available at http://wiki.creativecommons.org/Podcasting_Legal_Guide

- **Integrating technology into pre-defined Educational policies**: There have been many instances where educators are still arguing about new technologies being introduced into the pre-defined curriculum. Many educators want to try out the new tools available; however, they are helpless because the educational policies do not invite change. As educators, many people have been trying to mould the learning environment based on the learners’ needs. In this technology-driven world, where technology is a part of young learners’ lives, it is time to change and make the policies flexible to incorporate new tools. Cohen and Hill describe three policy levers: assessment, curriculum, and teacher learning, that must be pulled if changes in schools are to be effective (as cited in Owen et al., 2006, p. 49). There are many reasons why
educators are still apprehensive to incorporate these new technologies:

- **lack of knowledge**: Educators are still unaware of podcasting and its uses in the education sector.
- **scary technology**: Educators are scared to use the new technology.
- **extra work**: Educators are yet not ready to invest extra hours to learn a new tool and use it.
- **lack of recognition**: Educators are less enthusiastic to use the tools due to lack of recognition and support (technical and administrative). A few educators end-up doing a “one-man” army show and then discontinuing the efforts.
- **fear of failure**: Some educators might get discouraged if the whole process fails. This could happen due to lack of understanding and knowledge to appropriately use the tool for the purpose of education.
- **driven by the market trend**: A few educators might get driven by the marketing hype of the tool and use it for the purpose of education, without giving deep thought into the pedagogical applications of the tool.

- **Threat to privacy or safety** – Privacy and safety of the creator of the podcast is very important and very crucial in case the creators are children. A few solutions are to maintain a private podcast within the institute (a private/institutional podcast). To maintain privacy, it is always recommended to use a fake identity of the person who creates the podcast.

- **One more format of learning would affect already shaky understanding of digital copyright** – The fear that this new format of learning might muddy the already unstable knowledge of digital copyright is very valid. However, it is important to introduce different formats of learning to meet different learning styles. Also, this new format of learning might compel learners to strengthen or reinforce the existing knowledge of digital copyright.

- **Decline in attendance** – Many educators fear that the recorded lectures made available via a podcast will allow the students to miss classes. To some extent, this fear might turn into a reality; however, if proper precautions are taken, after some time, this fear might not exist. There are different reasons for a student to attend the
class even after getting the lecture as a podcast.
- The attendance policy might compel the students to attend the lectures.
- The students do not want to miss the discussions going on in the class.
- The interaction with the instructor and other students is important to widen the scope of learning.

In one of the posts (Podcasting your lectures – will your students stay or will they go?), Andy Ramsden (2007) highlights the views of the students surveyed. The post addresses the impact of podcasting on student attendance. Making the lectures available as podcasts will allow the valuable class time for discussions.

- **Revisions before examinations** – There are chances that listening to podcast content again and again might generate verbatim response in the examinations. However, this could happen with text too. Students should be made aware of not reproducing the information as taught.
- **Access to recorded lectures** – The administrators or the management might refer to the recorded lectures/training sessions and might use it for annual reviews. The instructors can also use their own recorded lectures to improve the lectures/sessions.
- **Sharing of course lectures with the outside world** – Educators might fear that anybody and everybody around the world will get access to their lectures. Education is about sharing; the more the knowledge is shared, the wider the scope of knowledge will get. There are many universities who have made their lectures available as a podcast for everyone to use – that too, for free!
- **Podcast lacks rapid comprehension** – It is a waste of time to listen to lengthy podcasts, just to realize it was not useful/ relevant or it was
Although podcasts are linear in nature, now there are techniques to introduce markers/chapters to jump from one section to another. Also, if the podcast is lengthy, an abstract at the beginning of the podcast or as a textual abstract along with the podcast can be provided.

- A primary source of information or an alternative source, is it just value added? – Educators have been exploiting the use of podcasting in education, many are still experimenting and trying to determine the actual pedagogical value of podcasting. You might want to experiment with it too.

- Will podcast actually improve communication skills? – A few people believe that asking students to record and present the materials via podcasts is asking them to work in isolation. An important factor in improving communication skills is to get over the fear of speaking with others (in front of others). Although podcasting would be a preferred mode to deliver presentations for the students who are shy or feared about speaking in public, it is important to note that this mode will “ease” the mode of communication and not improve the communication itself. A solution to this problem could be to use podcasting in a slightly different way. One of
the important factors in improving communication skills is to “listen to oneself”. Listening to oneself provides an opportunity to learn from the mistakes. Students who are shy, feared, or not confident in speaking in front of the class need time to practice and get comfortable. Often, during the class hours educators do not have extra time to devote to students who need extra attention. So, initially these students can podcast their presentations and the instructor can provide constructive feedback on it. Later, once the students are confident, they can present in front of the class.

- **I will require an iPod for podcasting** – One of the very common misconceptions about podcasting is that an iPod is required for it. An iPod is an mp3 player – instead of an iPod, you can use any mp3 player. If you do not have an mp3 player, you can still podcast. An mp3 player adds the “content portability” feature to the concept of podcasting; however, you can listen to the podcasts using speakers or headphones.

- **Requires enormous search time** – There are so many podcasts available that it often becomes difficult to search for a podcast that is relevant to us. One of the advantages of podcasting is that it provides relevant information and saves effort and time required to search for the relevant content; however, searching for a relevant and good quality podcast from the copious collection requires substantial amount of time. Technology experts are trying to solve this problem by customizing the search engines (such as Podscope) and portals to search for exactly what we are looking for – it might take some time though for an efficient tool to be out in the market.

- **Listening to informational podcasts requires concentration, not possible on the move** – The concept of “portable content,” listening to podcasts using mp3 players when in the gym, when driving, and so on, suggests using the free-time for the purpose of learning. Many consumers/listeners of podcasts have experienced that listening to the academic or training material requires concentration and serious engagement which is difficult to maintain when on the move. This is one more reason to not worry about an mp3 player for podcasting.

- **Increased workload, lack of recognition, lack of support, learning curve** – One of the reasons for lack of interest and motivation amongst educators/trainers who want to use this new tool is increased workload and lack of recognition. Often educators who try innovative tools are not recognized for their work and effort. Lack of management support, administrative support, or technical support might curb the curiosity of the educators to try out new tools for education. Educators are still not ready for extra time investment required to learn new tools. Before implementing a new tool in education, one has to invest time to learn, practice, and plan. If this effort is not recognized or supported, it will impact the enthusiasm and interest of educators who want to try out new tools for education.

Podcasts also have a marketing value – it could serve as a value-add to your resume in this technology-driven competitive world.

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An Intercultural Communication Event via Video Bridge: Bringing Russian and American Students Together

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Through globalization, the world is becoming smaller, placing responsibility on the educational system to prepare tolerant, culturally empathetic learners. In response to this rising demand, students from a U.S. Midwestern university and another from St. Petersburg, Russia, met on a video bridge and learned intercultural communications by interculturally communicating. This paper examines how video-conferencing allowed American and Russian students on opposite ends of the earth to meet through technology to share each others' beliefs, values, and world views, and to sample the elaborate, multidimensional, and pervasive cultures of their international counterparts.

Technology has ushered in a new era in higher education. Our milieu has changed from blackboards and chalk to liquid screens and keyboards; from row-aligned desks in traditional classrooms with face-to-face interaction to cyberspatial synchronous communication where students and teachers interact via satellite and broadband networks. However, technology has not only revolutionized the medium through which we educate, but it has also morphed the content of what we teach. Because of advancements in transportation and information systems technology, intercultural contact has accelerated, compelling the educational system to address the surging need for more effective intercultural communication. According to Samovar and Porter (2004), “Because of international contacts, it is becoming obvious that a symbiotic relationship ties all people together. No nation, group, or culture can remain aloof or autonomous. If you touch one part of the world, you touch all parts” (p. 5)

In response to the burgeoning interconnectedness of Earth’s inhabitants, players in higher education have a unique opportunity to use the same technology that has brought us together to also help us understand one another. In this spirit of collegial partnership, two universities, one from the Midwestern United States and another from St. Petersburg, Russia, met on a video bridge and learned intercultural communications by interculturally communicating. This paper examines how video-conferencing allowed American and Russian students on opposite ends of the earth to meet through technology to share each others’ beliefs, values, and world views, and to sample the elaborate, multidimensional, and pervasive cultures of their international counterparts.

Moran (2001) proposed in his “Guidelines for Teaching Culture” that learners move through various stages of an experiential learning cycle. With the use of interactive video, synchronous visual contact among students and professors at different sites is available, also enabling connections with experts in other geographical locations (Touchstone & Anderson, 1995). This interfacing allows learners to experience this learning cycle and to generate cultural behaviors (knowing how), procure cultural information (knowing about), seek out cultural explanations (knowing why), understand personal responses (knowing oneself), and by repeatedly undertaking this cycle, become insightful culture learners (personal competence).

This process is particularly important because since the beginning of human civilization, people have had to learn to get along, and historically speaking, we have not been all that successful. “The history of humankind details an ongoing antipathy and hostility toward those who are different” (Samovar & Porter, 2004, p. 3). In fact, who would have thought two decades ago at the height of the Cold War that American and Russian students would be synchronously interacting, actively constructing new knowledge and intercultural understanding through group and peer interaction? This is intriguing at both the cultural and technological level. Culturally, what prejudices and preconceived notions had to be overhauled in order for the alien differences that were malevolently present in Cold War rhetoric to be squashed? Technologically, what advances allowed this to happen? To answer the cultural question, we will examine the intercultural communication objectives that were met when the two groups of culturally diverse students of the authors of this paper came together virtually from thousands of miles away to enroll in the same class, interact on a daily basis, and arrive at a significant degree of mutual understanding. In response to the technology question, we will describe the technology that was implemented and discuss its advantages and disadvantages.

The class that we planned and carried out was called, “Cultural Aspects of Language.” Before we actually planned our joint venture, our respective universities were each delivering classes on intercultural communications. The idea for bringing together our American and Russian students to team-teach them via video technology germinated with the recognition that there were limitations to teaching this
subject matter with only a textbook in hand. Theoretically, one could discuss varieties of beliefs, values, and worldviews, but it seemed that the critical human element was missing. For example, a Protestant American student discussing the religious beliefs of Russian orthodoxy could be informative, but it was thought to be another totally different and more real experience if individuals could see the face and hear the passion found in the voice of a Russian student describing the ornate alters found in their centuries old churches. Thus, the two authors of this paper came together to plan and execute a class where video technology was used that allowed synchronous interaction between our two cultures where various objectives were met.

Course Objectives

The use of videoconferencing technology erased geographical boundaries and allowed Russian and American students to come together in time and place. It was only through the features of this technology that we were able to meet our instructional goals and objectives. Although many more goals and objectives could have been added to our list, the following are those that were particularly enhanced by the use of technology.

Our first objective was to immerse our students in an intercultural situation where they would gain the insight provided by different perspectives and experiences and where their consciousness would be raised about cultural differences. Through this immersion, our goal was to stimulate our students to clarify their own values about diversity and make them more successful intercultural communicators. In the past, this type of immersion could only have been carried out through study abroad programs where students travel to their country of interest. Videoconferencing technology allowed us to dialogue with members of another culture, learning through discussion and reflection. We were transported through time and space to become one learning community.

Our second objective concerned the enhancement of language learning/teaching skills. All of the Russian students were non-native speakers of English who were afforded the opportunity of interacting in their target language for several hours each day. All of the American students were TESOL (Teaching English to Speakers of Other Languages) majors who, through the use of technology, were exposed to advanced foreign language speakers of English and were given first hand experience of interacting with them. Other current computer internet technology like chatting and blogging necessitates the use of a keyboard and, therefore, enhances the reading and writing skills of learning a second language. Videoconferencing provided real life learning and teaching practice of the speaking and listening modalities.

Besides speaking and listening, the visual cues provided by videoconferencing gave each group insight into the use of cross cultural nonverbal communication. One of the pillars of communicative competence is sociolinguistic competence (Canale & Swain, 1980), which encompasses the whole notion of knowing how to interact nonverbally with people in the target culture. Because so much of what people communicate is nonverbal, some say as much as 65% (Mehrabian & Ferris, 1967), we would be remiss as language educators if we did not place students in situations where they would be receivers and senders of authentic nonverbal communication. This is important because “although much of our nonverbal communication is universal, many of your nonverbal actions are touched and altered by culture” (Samovar & Porter, 2004, p. 166).

Finally, current classroom technology allowed us to meet the objective of providing a window through which our students could view the cultural influences in the educational setting. By participating through videoconferencing, we were able to become flies on each others’ walls. That is to say, we were given a peek into the classroom processes of another culture and gained valuable insight by studying the others’ perception and approach to education. Russian students were surprised that American students called their professor by her first name and that students were eating during class (American students had a sign up sheet for “treats” on the first day of class). American students thought it strange that Russian girls sat in class eating during class (American students had a sign up sheet for “treats” on the first day of class). American students dove right into small group activities, whereas the Russians were more reticent. These are only a few of many examples of what students saw as they observed the interaction of students at the other site.

Procedures

The class met 3 hours a day, 4 days a week, for an entire month. There were 16 American students and 10 Russian students each in their respective classrooms with their own professor. Both groups followed an identical syllabus, participated in the same activities, read the same text, and were evaluated in similar ways, although grading procedures were dictated by the individual institutions. The class began each day with a “warm-up” which included three activities that were organized and assigned on the first day of class.

For the first daily “warm-up” activity, one student at each site was asked to bring in a current article from his/her respective newspaper whose contents focused on the other culture. That is to say, the American student at each site was asked to bring in a current article from his/her respective newspaper whose contents focused on the other culture.
student brought in an article from the U.S. media about Russia, and the Russian student shared something from the Russian media about America. This allowed students to see how the media and their societies in general were portraying each other and themselves. Current events seen through the eyes of another culture’s media resulted in some fascinating conversations between the sites. It so happened that there was a political showdown being played out in the media between the U.S. and Russia over how to deal with Iran during the course of the class, and the handling of this international episode clearly demonstrated to students how public opinion is influenced by the press.

The second “warm-up” activity consisted of a list that was distributed on the first day of class of “universal values” which included marriage, death rituals, courtship, taboos, housing, superstitions, and greetings, among others. A value was chosen for each day and a student at each site volunteered to present how their culture operationalized the idea. Students’ feedback at the end of the course consistently demonstrated how intriguing they found the differences and how pleasantly surprised they were by the similarities. For example, students had expressed surprise at how similar superstitions were between the two cultures. Although both cultures agreed that black cats were unlucky, the Russian students thought horseshoes brought luck while the Americans believed in the power of the rabbit’s foot and the four leaf clover. In another presentation, the Russians were somewhat taken aback by the embalming process after death (which was graphically described by an American ex-mortuary student), while the Americans found the leisure activities of the Russians unfamiliar. This activity allowed students to compare and contrast basic values and beliefs found in each culture.

We finished the daily “warm-ups” with a 3-5 minute presentation on a topic of the students’ choice. On the first day of class, a student at each site was given a date upon which they would present anything that he/she thought would interest their classmates at the other site. Among topics chosen by the American students were “rural life in the Midwest,” “the rise of Walmart,” and “popular outdoor activities.” Russian students had chosen “museums,” “graduation parties,” and “Olympic sports.” This activity allowed students at each site the opportunity to share whatever they wanted with few parameters as to choice.

After the warm-up, which generally lasted around 45 minutes, we asked students to write a journal entry on a topic that was related to the assigned reading. The purpose was to have students composing their ideas and through this process, help to clarify some of their values concerning the more thought provoking ideas of the chapter. Our topics were carefully chosen, avoiding display questions that had “right” and “wrong” answers but rather demanded reflection from the students. Some of the topics that students were asked to write about included the presence of a “world collective consciousness,” “ingroup,” and “outgroup” identities; national pride, patriotism, and ethnocentrism; cultural misunderstandings; the impact of the media on cultural identity, international intervention, and the concept of the “global village.” Students were then offered the opportunity to share what they had written.

Next, we engaged in a discussion of the assigned reading. We chose the text *Intercultural Communication* (Rogers & Steinfatt, 1999), which took a historical approach to intercultural communications and provided the foundation to understand obstacles to its success. We explored the changes in the field from its sociological roots through the present and important concepts such as nonverbal communication, assimilation, ethnocentrism, prejudice, and individualism vs. collectivism. The use of this text gave theoretical support to the very activity in which we were embarking—intercultural communications.

After the text discussion, we participated in a variety of activities that were related to the content of the text or the skill of becoming a better intercultural communicator. To highlight some of the activities that stimulated the best discussions, there was an activity on self-disclosure where students were asked to respond whether issues involved in opinions, tastes, work and study, money, personality, body, and family were public or private domains. While many of the statements like “feelings about my sexual adequacy” were definitely perceived as private by both Russians and Americans, there were differences about how much information one would divulge on matters of money and family. Another activity that stimulated much interaction was one where students were asked to identify “stereotypes and attributes” that they hold about various groups of people (for example, Muslims, people with AIDS, males/females, etc.).

Finally, students participated in “Critical Incidents.” A critical incident includes a story about a cross-cultural miscommunication with a subsequent set of questions. After reading the story, students were asked to choose the best interpretation of the characters’ action based on their knowledge of the characters’ cultures. As in real life situations, there was more than one explanation that could be considered correct. Students were invited to discuss their options in small groups and to rate the choices. Both sets of students found the activity helpful in developing their empathy and tolerance as they tried to understand why miscommunication occurs. Interestingly, the Russian students were able to draw significant parallels in their own culture to those that were handed to them as events that occurred in the American classroom.
The Technology

Using interactive Polycom Video Conferencing Units, American and Russian students were able to synchronously videoconference using high-speed internet access. In order to connect, the Russian and American universities dialed the Internet Protocol (IP) number of the video bridge located at the American university. The video bridge is used to connect multiple sites together into a multipoint video conference. Although the experience being presently described had only two sites participating, the video bridge purchased by the American university has the capacity to connect 16 sites simultaneously. By using the video bridge in this example, it enabled other non-participating sites to join the class and observe the course and technology. (Universities from Chile and Moscow joined us for several days as observers.) Remote controls were used to manipulate the cameras at both sites. The microphones were open unless muted manually. Students saw each other on television monitors, and when someone spoke at either of the sites, the camera at that location could be zoomed, panned, and titled by using the specialized Polycom remote. When the person stopped talking, the camera could be easily set back to the wide angle showing the entire group. The video bridge that was used adheres to the H.323 standard. This standard enables others to connect to the conference as long as their video conferencing equipment met the H.323 standard.

Limitations

Although the benefits of sharing in this joint venture far exceeded any of the limitations, it is still necessary to comment on some of the difficulties that were encountered. The first hurdle was scheduling. There is a 9 hour difference between the U.S. and Russia, so if the American students enter class at 9:00 a.m., the Russian students have already completed a whole day of activities and begin a 3 hour class at 6:00 p.m. Our best option was to begin as early as possible in the U.S. so that the Russian students were not in class until the wee hours of their morning. Coventry (2006) reported that video conferencing can cause extreme fatigue as more intense concentration is required than that found in a traditional face to face classroom, so our intention was to mitigate that fatigue as much as possible. There were also difficulties concerning the semester schedules at the respective universities. While this was scheduled as a May Term class in the U.S., the Russian students were in the middle of their annual examination period, making it difficult for Russian students to meet all of their obligations.

Because we had experience using videoconferencing with remote sites on other occasions, we understood many of the limitations. In those instances where only one professor is in charge of all of the videoconferencing sites, issues such as depersonalization and isolation have a high probability of occurring. Learners have the tendency to view their instructor as an object on a screen or as a “talking head.” Furthermore, without strong leadership at each site, students who are off camera have mute microphones and may have a tendency to disengage and talk off task (Coventry, 2006). Those who have taught via videoconferencing have also noted that the rhythm of the class is different than face to face classroom interaction. Wait time is longer as discussions are technologically mediated.

To mitigate these problems, we co-taught the course, with a professor at each site. We developed both inter-site and intra-site rapport. That is to say, we often had discussions within the individual sites and then joined together to report on those discussions. The presence of a “live” professor also eliminated the off task talking and inattentiveness that is sometimes found at remote sites, and also greatly limited the isolation and depersonalization that students often feel during videoconferencing.

Conclusion

The most poignant examples of the success of this project can be found in the final journal entries of the students who were asked on the last day of class to write about how this video-conferencing experience had changed their ways of thinking. As previously intimated, our purpose was one that was as much focused on values clarification as it was on gaining intercultural content knowledge. Our success in meeting these goals are found in the following statements made by students at the conclusion of the class. Some of their responses were

“This class has done an outstanding job of helping to bridge two cultures via technology.”

“I think that pairing up with Russia allowed us to see that even though there were small differences we are more alike than we may have thought before the class started.”

“My opinion about Americans has been changed since the first class.”

“I feel myself more open to the other cultures.”

“I became more tolerant and patient with people from other cultures.”
“This class has impacted me greatly because I was able to see how we in the U.S. have such a narrow view of many things.”

“I am grateful to American students because they disclosed so many new ideas about American culture.”

The interconnectedness of the world brought about by advances in technology demands that different cultures try to understand one another. Institutions of higher education are in a unique position to rise to the challenge. The technology that shrunk our world can be used to bring us closer together by providing spaces where we can immerse ourselves with each other without ever having to get on a plane.

References


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Teaching Graduate Students in the Social Sciences
Writing for Publication

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Writing requires reflective thinking that takes time. Yet, our technological society has speeded up the pace of our everyday lived experience. This article describes a systematic method developed by two tenured faculty at geographically distant universities to demystify the process of professional academic writing. Using action research as method, the authors have devised steps to help graduate students begin to slow their hectic pace of life and to critically reflect on the writing process itself as a necessary step in the art of writing for publication. Their method of teaching professional writing for publication has resulted in students’ work being successfully published.

The title of Robert Kegan’s (1994) book, In Over our Heads: The Mental Demands of Modern Life, aptly describes the lives of our part-time working graduate students, as well as many of us struggling to manage our lives in contemporary society. Our students’ lives, filled as they are with multiple and disparate activities, leave them with little time to think and reflect. Henson (2005) argued that the pace of life obliges all of us to work faster and faster. He also pointed out that both those who write for publication and those who do not, live with the same obligations and impositions of contemporary life. Yet, the hectic pace of life we all experience means the ability to write clear, focused reports on research often seems beyond our graduate students’ abilities, even when they are well along in their graduate coursework. Graduate students learn that writing for publication is a different skill than writing a good course paper. Unfortunately, the transition from writing a course paper to writing a manuscript worthy of submission is often difficult for them to make. The transition occurs when students develop reflective writing skills such as realizing that a good paper is not produced in the first draft, that feedback from others is useful to improving the draft and is not a personal attack, and that their own careful reading of a draft should be done in search of more than just spelling and grammatical errors. Once they begin to make this transition and begin to develop more consciously reflective writing skills, their writing improves in all areas whether preparing a manuscript for publication, writing a course paper, or preparing documents for work.

Our graduate students in Education and the Social Sciences enjoy few opportunities to take courses focused specifically on writing for publication, few opportunities to observe faculty members critiquing a manuscript, or struggling just like students struggle, to write the first sentence on a blank page. The result is that few students pursuing doctoral studies in the areas under discussion ever publish and, when they do, it is likely to be limited only to their dissertations. Many agree that one of the gaps in graduate education includes teaching the process of writing for publication (Jackson, Nelson, Heggins, Baatz, & Schuh, 1999; Rippenberger, 1998). Professional academic writing is frequently assumed to be something graduate students innately know how to do (Gaillet, 1996) or the job of other faculty to teach (Sullivan, 1994). For this reason the authors, who are faculty from geographically distant universities, have designed courses to teach graduate students how to write for publication in the journals of their respective fields, in addition to mastering the content areas of their respective courses.

Although many graduate programs have similar courses in which students are expected to write journal quality papers, the mechanics of teaching scholarly writing have been researched at the graduate level mainly in journals addressing specific disciplines such as Health Care (Dixon, 2001), English, distance learning, and general administration (Witt, 1995). Most of the research on teaching writing is at the undergraduate level (see Blakely, 1997; Jago, 1990; Jobe, 1991; Profozich, 1997; Shafer, 1999), and focuses on a much broader area of academic writing than is our intention. This article is concerned exclusively with the teaching of writing for publication in refereed scholarly conferences and journals. The purpose of this paper is to promote dialogue among graduate faculty in the social sciences, to better understand the problems graduate students have with professional academic style writing, and to begin a search for practical solutions. We begin with a brief description of the method, followed by literature on teaching professional writing, strategies used, implications for graduate education, and insights. We hope the examination of the literature and strategies we have used to teach professional academic writing for publication will promote dialogue among faculty concerning the problems graduate students face in professional...
writing, along with dialog about practical solutions to those problems.

Method

The method used to gather data pertinent to this study is best described as action research. Action research is a limited investigation of tactics, strategies, and innovations intended to change a local approach to education or training. Action research is attributed originally to Kurt Lewin who promoted the simple research tactic of changing methods or processes and studying their effects (Merriam & Simpson, 1984). According to Merriam and Simpson, action research is intended to be applied to a specific situation or problem. The research problem emerges out of real events, participants are not sampled, and procedures for the research are planned only vaguely at the beginning and are subject to change. In the case of the current study, the authors have a combined 20 years of testing various strategies to encourage students to produce professional academic writing suitable for submission to refereed journals and refereed academic paper presentations.

Review of Selected Literature on Writing for Publication

In two editorials, Smaby, Crews, and Downing (1998, 1999), editors of Counselor Education and Supervision, addressed problems of writing for publication. In the first editorial, they considered the importance of developing the proper attitude for writing for publication and taking responsibility for one’s actions. In the second editorial, they examined 180 manuscripts to find moderate to weak correlations between various components of a manuscript and acceptance or rejection. From this meta-analysis, they concluded that introductions, research design, data analysis, and conclusions were the most powerful discriminating elements for acceptance or rejection. The topics themselves appeared unrelated to rejection or acceptance. Henson (1995, 1997, 2001, 2005, 2005b) authored 11 biennial articles for Phi Delta Kappan, in which he reviewed various refereed journals in education, using survey research as a method. Henson’s surveys are very useful for aspiring authors because, like Cabell’s Publishing Opportunities in Education, he gives a table in each of these editions of Phi Delta Kappan that lists various characteristics of the journals. In a checklist table, he lists whether the journal is refereed, types of articles accepted, percentage of themed issues, rejection rate in percents, manuscript length, and style requirements. Later articles in this series introduced the category of whether the manuscripts can be submitted electronically. Henson (1997, 2005) is also the author of a book on academic publishing and the PDK Fastback No. 437 on writing for publication.

Rippenberger (1998) comes closer than Henson to addressing the topic of this article, which is to describe methods we have used to promote professional writing in our respective graduate programs. In addition, Rippenberger (1998) discussed the resultant learning outcomes of requiring students to publish, such as empowerment and motivation. She described the process of walking students through the steps of identifying a topic, choosing a journal, and even suggests using Henson’s analyses of journals in education as a helpful tool in choosing a journal.

There are also several useful books dedicated to the process of writing for publication and to providing hints for improving probabilities for acceptance. Of these, the most complete is that of Henson (2005), who targeted professional writing for journals in education. Swales and Feak (2004) focused mainly on writing in English teaching and research journals, whereas MacDonald (1994) broadened out her approach to include both the Humanities and Social Sciences. Gordon (2004) directed her book at librarians and described practical steps in submitting writing to a wide variety of publishing outlets including books.

In our graduate classes, we have used Rankin (2001) and Hiemstra and Brier (1994) for tips on writing, and Merriam and Simpson (2000) for research methods, with some success. Hiemstra and Brier (1994), although using a rather simplified approach to writing for publication, was preferred by a group of students at one university for its down to earth practicality. It literally guides the student through the steps of topic selection, outlining, text development, editing, choosing a journal, drafting an appropriate cover letter, and submission. Hiemstra and Brier focus on the hands-on, what-to-do- next approach, while Rankin (2001) contextualizes her comments around faculty in an academic department and discusses the political issues of promotion and tenure related to research and publication. She also discusses the formation of a faculty writing group as an approach to writing for publication. The advantage of the Hiemstra and Brier (1994) work is that it reads as if it were directed to graduate students, like a set of notes from a course on writing for publication. The one drawback of their book is the chapter on computer applications to writing, which is dated.

Strategies for Teaching Writing for Publication

A common complaint heard from doctoral students is that they have a lack of understanding about how to write for academic outlets such as conferences and journals. As faculty members in graduate schools of
education, we hear frequently from our colleagues that graduate students struggle to write clear, descriptive prose of the quality demanded by professional journals. We feel that an early introduction to the publication process is beneficial because it creates a context for future thinking about scholarly writing, demystifies the process, and improves writing skills. Our experiences teaching professional writing differ. One of us teaches professional writing to doctoral students exclusively and in a course that comes later in the program of studies. The other one starts with masters and doctoral level students in courses early in the students’ formation and continues the emphasis on professional writing in all courses. Next, we present our experiences with teaching writing in three different ways using different types of manuscripts as the model (conceptual or empirical manuscript, structured literature review, and conceptual manuscript) in the hopes that what we do will provide other instructors with teaching strategies useful in their courses. In the first section, preparing a conceptual or empirical manuscript, the focus is skill development broken down for grading purposes. The next two sections, conducting a structured literature review, and writing conceptual papers focus more on the process, detailing steps taken within the class sessions and the continuation of the process after the course ends.

Preparing a Conceptual or Empirical Manuscript

In a doctoral seminar on the effects of aging on learning and occupational performance, students are encouraged to move beyond a focus on content alone to include the preparation of a manuscript for submission to a professional journal. Although the content of the course is adult development and learning, the course grade is given on the quality of a proposal (20%), manuscript outline (20%), discussion in class (10%), and final draft with a cover letter (50%).

First, students select a topic of interest to them that relates to adult development as that development affects learning and work performance. Once a topic is selected, the students submit a three-page proposal (by the third class session) outlining the problem, the research questions, the purpose of the study, the intended product, along with potential publication outlets, and an initial bibliography. These proposals are presented in class to students who make suggestions for improvement, which may include a realignment of the problem or purpose. Fellow students critique the problem statement, purpose, and research questions for clarity and logical consistency. These presentations and critiques teach students to accept evaluation from peers and outside reviewers as positive, rather than negative experiences. The presentation of the bibliography section of the proposal alone brings out many helpful suggestions from class members who might have some familiarity with the topic.

Early in the development of this course, topics had originally been limited to the analysis of extant documents because a student in the early development of the course had submitted a paper that seemed to be based on student hearsay around campus as data, with little or no analysis. Later on, students were allowed to collect data for small pilot projects. Despite this license, introduced late in the history of the course, almost all students continue to limit themselves to the review and analysis of library sources and extant reports of research. As an added attraction, students realize that they can use the course to produce a manuscript that reviews literature specific to their dissertation topics, if they are far along in their doctoral programs. As Rippenberger (1998) insisted, the writing assignment involves all students enrolled in the course, not just those who are the best writers or who are exceptionally talented. The course requirement is to submit a manuscript to an educational journal, but the grade is not assigned on acceptance or non-acceptance, but on the quality of the paper. Unlike Rippenberger (1998) who actually collects the manuscripts and cover letters and sends them off to journals, the assignment of submission to a journal in this seminar is left solely up to the students. Submission of a final draft with a cover letter addressed to a bono fide journal completes the course requirements whether or not the student actually sends the manuscript to a journal.

Conducting a Structured Literature Review

Another approach to teaching professional writing is used in an introductory course in adult learning made up of doctoral and master’s students. The manuscript required for this course is a structured literature review following a process used by Rocco, Stein, and Lee (2003) where articles selected in structured and systematic searches become the data which will be analyzed to determine trends, issues, or themes.

Students for this course craft a problem statement ending with “the purpose of this study is” before beginning the structured literature review. Merriam and Simpson (2000) give helpful strategies for this stage of writing when they discuss the framing of a research study. Using strategies suggested by these authors, students learn how to craft an acceptable problem statement. Problem statements are focused so that they can be addressed by a systematic search and analysis of the literature. The problem statement concludes with a purpose statement which contains the parameters of the study. Once the parameters are clarified, students select databases, such as ERIC Clearinghouse or PsychINFO, which fit the parameters of their purpose statements.
Students select key words/descriptors related to their purpose statements to search databases. Students also note the number of abstracts each set of descriptors produces. In class, students discuss the criteria for including or excluding articles from their respective data sets.

Once the students settle on a given purpose statement, they analyze articles in their respective data sets following the content analysis technique proposed by Boyzantis (1998). Each of these steps is written up as method. Students present to the class each step of their research design along with their rationale for each step. Finally, they write up the research design section with the amount of detail a reader would need to replicate the study. Students in this course find the discussion section of their manuscripts the most challenging, in part, because there is limited time to cover each student’s presentation of the analysis in the discussion section within a course on adult learning. Another reason for this difficulty is that students have few opportunities to practice analyzing data of any type in other classes, consequently, they lack experience. This experience and context for finding meaning in the data hopefully results in a skill that they take with them and use in their other course work.

An early class session is spent covering the components of the manuscript: introduction (background to problem, problem statement, and purpose), the conceptual framework or theoretical framework for the paper, method, discussion, and implications. Another class period is spent critiquing as a group each student’s introduction section which is projected on to a screen and read aloud. This allows the group to identify lapses in transitions or stylistic errors in addition to following the logic of the introduction. Additional class sessions focus on descriptions of method and the discussion sections of the manuscripts.

In the group discussions mentioned above, students display their varied strengths as critics. Some excel in their grasp of grammar and syntax, or they may have an acute eye for transitions, skills that help every class member improve their respective manuscripts. Involving all students in these class discussions, some of whom are skilled in APA guidelines, grammar, and syntax, seems to build confidence in the other students. As student papers are being critiqued by the group, an uncomfortable situation for most students, the instructor has to play a delicate and important role of moderating the discussion by carefully rewording negative comments into positive opportunities for improvement. This group critique actually helps students overcome their initial discomfort in presenting their work before peers and other more daunting audiences such as journal reviewers. They come to realize that they can benefit from the insights of fellow students, as well as share their own insights, and that the instructor also learns from this exercise. Students have commented after class that this critique of their manuscripts projected on the screen before their peers is the most valuable activity in the course because they begin to see their own mistakes and the mistakes of others, and learn how to correct them. Moreover, they begin to see that there are multiple ways of reorganizing the narrative or re-conceptualizing a problem statement, rather than the one way they had been struggling with. Students also report that the experience of critiquing in group, although painful at times, is such a powerful learning experience that they never choose to skip it.

Each time this course has been taught, several student authors have submitted their papers to local and regional conferences. However, since submission has never been a requirement in this course, about a fourth of the papers from each class actually reach submission to professional or scholarly conferences and a few of these are published in journals. After the course ends, certain manuscripts may require additional refinement. In the past, the instructor and other class members have assisted student authors after the semester ended. Occasionally, to motivate Master’s students to attempt to publish, we have offered students incentives such as a reduction in course assignments if they submitted to local research conferences. In one particular semester, 12 students submitted papers to a local research conference. The reviewers rejected two of the submissions, while one student, who had been accepted, did not follow through and withdrew her paper.

Some students had avoided taking this course until the end of their program of studies because of a fear of writing. However, in debriefing sessions after the course ended, many claim they had a good experience with the emphasis on writing, the opportunity to submit to a conference, and the feedback from the audience. Many of the students were so satisfied with this process that they recommend the course to their peers.

Writing Conceptual Papers

In a course designed to promote writing for publication, without focus on any specific content area, students learn how to write a concept or position paper, book reviews, conference proposals, and papers. The concept or position paper for this course is broken down into three main sections: (a) introduction (background to problem, problem statement, purpose, organizing questions or objectives, and a conceptual/theoretical framework), (b) discussion (organized around themes or categories or headings that guide the argument), and (c) implications (sometimes with tables or diagrams to illustrate the argument or discussion and specific relevance to the field). Each section has a due date and is discussed in class by projecting the given section onto a screen. In this way,
the entire class participates in the critique of each section of the manuscript, making suggestions for improvement and further reading. The instructor often captures these suggestions from the class using the *track changes* function both to project onto the screen for accuracy, and to give the student a record from which to make additional edits.

Another technique we use is to have students pair up or form peer review groups to provide feedback to each other using track changes. This helps develop students’ skills as reviewers which, in turn, helps novice authors see their own work through the eyes of a reader. Peer critiquing in a group meeting or in making suggestions using track changes helps to demystify the writing process, eventually lessening the initial fear of displaying one's work to an audience. When peer review involves sending a paper to the entire class, the critiques can be so numerous that they are overwhelming, and even counterproductive. Consequently, emailed critiques seem to work best when students are divided into groups of three or four. This way any given student will only receive feedback from two or three other students at a time. As in any structured group process, the student being critiqued receives the feedback and determines how to respond to it. In this particular course, where writing for publication is the sole objective, students incorporate the comments from their peer group before submitting their work to the instructor.

Grading is postponed until the end of the course on the paper which is just a component of the grade. The purpose of postponing the grading until the very end is to allow the students to use feedback from peers to improve their papers, much in the way professional reviewers would do, had they submitted to academic journals. Grading in the process focused course is not wholly based on the quality of the manuscript. Other factors such as dedication to the process, improvement over the term, and responsiveness to peers are also considered. The process of seeing their own mistakes and those made by their peers allows them to rewrite, edit, and improve their work until they submit their final manuscripts for a course grade. By the end of the term, the students have selected a journal for their manuscript, have prepared the manuscript with an eye towards the journal’s requirements, and on the last day we celebrate their hard work and the completion of the papers.

Implications for Graduate Education

The courses in which we focus on writing for publication came at different points in the program. The first course was in the beginning of the program of study at the master's level with only one or two doctoral students enrolled each time. The second course was at the end of the program of study for advanced doctoral students. The third course was open to all in the college with students taking it in the middle of their programs. Regardless of the stage the students were in their program or the level in each course, some students voluntarily followed through by submitting to conferences or journals. One of the authors of this article has had notable success in mentoring students to submit conference papers which resulted in many student articles being published in regional and national proceedings. A few have even been published in refereed journals.

Throughout these courses, we emphasize the need for others to critique work for the purpose of improving it. Each piece from proposal to final draft has its own due date which avoids a last minute rush to produce a final product. Breaking the writing up into parts or sections also slows down the process allowing students to devote more critical attention to thinking things through. As an added learning outcome in our method of teaching professional writing, students learn to review and critique articles, a skill they may need for the future as guest editors or editorial board members of journals in their respective fields.

Some students follow through and have their work published. Others submit and then withdraw papers from the consideration or do not follow through with revisions. At the university located in the rural heartland, a very talented student had her manuscript rejected by a prestigious journal with the opportunity to resubmit with changes. She felt hurt and focused more on the rejection than on the opportunity. Consequently, she did not resubmit. Her project began as an opportunity to review the literature for her dissertation. Her review of the literature developed into a valuable article about age discrimination and the plight of older workers in the United States. The lesson learned in this case is to value the opportunity to resubmit and to control one’s feelings of rejection.

In contrast to the above example, a pair of students submitted a paper that was rejected by reviewers for a refereed conference with proceedings because they failed to meet the specifications outlined in the call for proposals. The next year, the same students continued to work on their original topic and submitted it to a refereed regional conference where it won an award for the best student research paper. Finally, they submitted it for publication to the most prestigious journal in their field. The editor’s decision was to reject with the opportunity to revise and resubmit the manuscript requiring the authors to reduce the length by 4,000 words. The resubmission was published 2 years later. The lesson in this latter example is for students to control their feelings in dealing with reviewers and to persevere, regardless of setbacks.
It is our contention that students who withdrew their papers did not understand the importance of a strong commitment to present their work to reviewers, to be attentive to critiques, and to the importance of revising their work. What seemed a lack of commitment from students instead highlights the assumption academics make that students understand the protracted process of academic publishing and that, in the majority of cases, manuscripts typically earn a revise-and-resubmit decision. To remedy this, a full explanation of the processes and expectations of submitting manuscripts to journals and conferences has over the years been added to these courses. The relatively low submission and acceptance rates of our student papers is less important than their efforts, as this is the first time any of them have ever submitted writing to an outside jury. At first, our graduate students are intimidated by the prospect of researching and writing for publication. As they move through the course, they begin to gain confidence because we partition the tasks and the tasks are shared in the sense that everyone enters into the process of improving student manuscripts.

Insights

We believe that the contemporary pace of life militates against good academic writing. When we first presented our ideas at a professional conference, the room was packed with young faculty from universities across the United States. This experience led us to believe that the challenge of professional level academic writing is a national issue that all of higher education faces today. We also came away from that conference convinced that steps can be taken to demystify the process of writing for publication. Once structures are designed to partition the process into clearly distinct steps, students can be guided through these steps in a way that slows them down, helps them to be self-critical, and removes the fear of being judged by others. As we continue these courses, we look forward to more creative ideas from students who will view rejection letters as valuable feedback that enables them to improve their work and enhance their chances of publishing. Future research is needed to promote dialogue among graduate faculty in the social sciences, to better understand the problems graduate students have with professional academic style writing, and to begin a search for practical solutions.

Hiemstra and Brier (1984) pointed out all the advantages of publishing, which include contributing to the discourse in one’s professional field and even improving one’s own ability to communicate and one’s own thought processes. Professional writing creates a dialogue between the author and the readers particularly when opportunities are created for collaboration on other projects or when the publication provokes a response which is published in turn. This dialogue expands and supports development of a professional community. Scholars who actively engage in this dialogue are in a better position to encourage students to engage in the dialogue by publishing. For young faculty, of course, it improves their ability to teach in a clear, logical way. Our message to graduate students who hope to have future careers in academe is “keep writing”

References


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How Service and Learning Came Together To Promote Cura Personalis

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_Cura personalis_ (care of the individual) represents one of the core ideals of all Jesuit colleges and universities. At one urban Jesuit college, faculty members of The School of Education and Humanities, and The College of Arts and Sciences initiated a service-learning project in a freshman level pedagogical core course. One goal of the Children’s Literature course was to promote deeper understanding, empathy, and action in undergraduate students towards working with children in urban schools. In order to promote this goal, a 10-hour service-learning requirement was added to the course. For 10 hours, students in the course, teacher candidates and others, worked in a multicultural urban classroom, sharing multicultural literature and classroom activities. Overall, the students, who mostly came from suburban environments, felt the experience was rewarding. Many students came to realize that their preconceptions about urban schools were inaccurate. The experience made several of the prospective teachers more willing to teach in urban schools. Also, students became aware of the many basic needs of the urban schools and how these needs affected student learning. Many students came to believe that student diversity in the elementary classroom had a positive influence on the classroom environment.

Service learning links academic course work with community-based service. It is an avenue through which students in higher education can construct more meaningful and relevant experiences that directly align with the learning goals of a particular course so that theory and practice are taught in unison. Butin (2006) stated, “By linking theory with practice and classrooms with communities, service learning provides real-world exposure and engagement with meaningful local and global issues through concrete and ameliorative practices” (p. 1). A body of research supports the positive academic, social, and cultural impact service learning has on students’ learning outcomes (Astin & Sax, 1998; Butin, 2006; Chang, 2002). It is especially interesting to note that these positive impacts appear to be evident many years after the service learning experience (Misâ, Anderson, & Yamamura, 2005).

Deblasis (2006) differentiated between community service and community-based service learning. Often, community service turns out to be simple charity work. Community-based service learning goes beyond charity work as it allows students to practice theoretical knowledge they learn in the classroom (Deblasis, 2006). The pedagogical strategy for service learning combines the learning goals of the course with the pedagogical opportunities of the service project (Berle, 2006). The students see the experience more than an act of charity because the service learning becomes part of the course learning goals, part of the pedagogical strategy. The community is the beneficiary of service learning, but it is also a source of information, evaluation, and validation of knowledge (Walshok, 1999).

As a form of experiential learning, service learning projects need to possess three components: (a) alignment with course curricula, (b) service component where students work with a high-need community organization, and (c) students’ reflections of the service learning experience. Faculty must link the needs of the community directly with the specific learning goals outlined in their course syllabus. This project was carefully designed to help students become actively involved in experiences that they would otherwise have simply read about in the undergraduate course. The school district in which the college is located has been declared by the state as having “high student needs relative to district resource capacity” (Learning Point Associates, 2006, p. 2). The students were directly engaged in learning how children respond to literature by reading an age appropriate multicultural book and directing the children in a classroom activity based on the reading. A crucial component after the service learning experience is the students’ reflection. The reflection concludes the process and builds on service learning experiences. It allows students to apply what has been learned to a “more global self-awareness,” and allows “students to transfer their learning from one context to another” (Herman, 2000, pp. 114-115). The faculty member must use class time to have students share their experience during and after the project.

The purpose of our study was to investigate three research questions:

1. What value did the undergraduate students perceive from the service learning project?
2. What impact did the service learning project have on the students’ views of urban education?
3. For the prospective teachers, how did the service learning project alter their expressed willingness to teach in urban schools?
Method

The Service Learning Experience

Course objectives were incorporated into the actual service learning experience. The service learning is a requirement for EDE 121. A proposal was sent to the human subjects review board beforehand. Since the college students were already enrolled in our program, approval was not required. College candidates were asked to review multicultural literature and complete a classroom assignment that required them to utilize 10 areas to be considered in their evaluation process (see Assignment Appendix A).

After spending a few hours in their assigned classrooms, they selected a high-quality multicultural storybook to read with a group of children and extended this experience with an appropriate interactive activity for the elementary students. An example of an interactive activity and a teaching technique is that students followed the reading a multicultural storybook with related hands-on activity such as an art project or a role-play. After the learning experience (10 hours over a 2 month period in the classroom), reading a multicultural storybook to a group of children and planning/implementing an interactive activity, students are asked to write a one page paper reflecting on their experience (e.g., What went well? What would they change?).

Urban School Environment

College freshman were placed in inner-city school classrooms grades 1-6, in a school with a diverse population. The school includes grades 1-8 with a total of 1,003 students. Students’ racial/ethnic origin in percentage of enrollment is as follows: American Indian, Alaskan, Asian, or Pacific Islander 17.8%; Black (not Hispanic) 35.3%; Hispanic 15.1%; and White (not Hispanic) 31.8%. The percentage of limited English proficient students (also known as English language learners) was 38.4%. The student socioeconomic and stability indicators (percent of enrollment) are free lunch 86.4%, reduced lunch 9.6%, public assistance 81-90%, and student’s stability 80%.

Participants

A total of 25 undergraduate students participated in the project. The students who enrolled in the class included 24 females and 1 male. There were 9 students who were not training to be teachers, 2 from the business school and 7 from the school of arts and sciences. The 16 students in the teacher education program included 6 in special education, 6 in childhood/elementary education, 2 in early childhood education, and 2 in adolescent education.

Sixteen students filled out both pre surveys and post surveys. Six students filled out only the pre surveys and 3 students filled out only the post surveys. According to the information on the 22 pre-surveys, 5 students lived in an urban environment, 2 in a rural environment, and 15 in a suburban environment. Fifteen students attended public school, 3 students attended parochial school, and 4 students attended private school. Two students came from families with a household income of less than $24,999, 8 students came from families with a household income between $25,000 and $49,000, 6 students came from families with a household income between $50,000 and $99,999, and 5 students came from families with a household income between $100,000 and 149,999, and 1 student did not report household income.

Surveys

Surveys were distributed and collected during class time in the first month of the semester (prior to the start of the service learning hours) and during the last week of the semester (at the conclusion of the service learning hours). Data were entered into a spreadsheet. The researchers reviewed the written comments on the surveys and the reflective papers and analyzed these using inductive analyses to generate categories (Johnson, 2005).

Analytical surveys were used to answer the research questions. It is important to remember an analytic survey study cannot justify causal relationships but can help the researcher to recognize possible causal factors that can be further studied through experimentation (Novak, 1963).

The pre-survey consisted of 9 items. The post-survey consisted of 7 items. The surveys contained both close-ended items and open-ended items. The pre-survey included demographic items; age, gender, environmental background (urban, suburban, rural), type of school attended (public, parochial, private), family income level, and college class level. Both the pre- and post-survey asked about willingness to teach in an urban school, features that might influence willingness to seek employment in an urban school district, preparedness to teach in an urban school, and one change that urban schools should make to improve student learning. Only the post-survey asked, “What was learned about teaching from the experience” (copy of the pre-survey and the post-survey in Appendix B).
Results

Research Question 1 asked what value did the undergraduate students perceive from the service-learning project. The students’ answers to the post-experience survey question 6, “What was the most rewarding experience working in an urban school?” address this question. On the survey, 6 of the college students indicated that the most rewarding experience was learning about the amount of diversity in the classroom. Four students referred to the establishment of positive interrelationships between the children in the classroom. Three college students reported that helping the children and especially helping students with special needs was the most rewarding experience. One wrote on the survey, “I learned how to deal with different children’s learning disabilities. I learned how every child needs special attention in his or her own way.”

Written reflections from the students offered other testimonials about the value of the experience. Some used language that referred to the value of getting acquainted with individuals from a different community. One student wrote, “Sometimes as humans, our eyes are not opened to anything other than the lives we live, and working at this school was an eye opener to another world.”

Other students emphasized the connection between their college class and their service learning experience. One wrote, “I was able to bring into the classroom a lot of the topics that we covered on campus. For example, when I was working with the children in reading groups, I was able to apply what I learned about the reading process.” Another student added the following:

So many things I experienced while at the school reminded me of the topics we had discussed in class. Personally, I started to appreciate what I’ve learned in class when I had to read a book to the class. I felt confident in the fact that I knew the correct way to read to them and possible activities to use afterwards.

For some of the aspiring teachers, the service learning project was valuable in validating their decision to be teachers. One wrote, I personally feel that you either have the heart and personality to work with and teach young children, or you do not. Service learning is a perfect experience for college students so we can get into the classroom to reassure ourselves that teaching is really what remains in our hearts.

Another revealed, “Before my service learning, my major was undecided, but now I have decided to be a teacher.”

Research Question 2 asked what impact did service learning project have on the students’ views of urban education?

A comparison of the students’ answers to pre-survey question 9, “What is one thing you would like to change about urban education?” with their answers to post-survey question 7, “If there were one thing you could change in urban education, what would you change?” can be used to answer research question 2. Five students responded to the pre-survey question 9, with “I would change the amount of funding for schools.” Six students answered the post-survey question 7 by stating funding needed to be increased. Five students thought the classroom environment needed to be changed prior to the service learning experience, and 6 students thought the classroom environment needed to be changed after participating in the service learning experience. The big differences in the students’ answers were the descriptors the students used in answering post-survey question 7 as compared to the answers to pre-survey question 9. For instance, the students stated a “friendlier atmosphere” is something that is needed on post-survey question 7. Another student responded the “attitude of teachers” needs to be changed and several students suggested the school needed to be cleaner and more rules needed to be enforced, post-survey. Students appeared to be grappling with some of the complex issues around urban education.

Research Question 3 focused on the prospective teachers in the study and asked if the service learning project altered their expressed willingness to teach in urban schools. Seven students who filled out the pre- and post-surveys indicated they were more willing to teach in an urban school after the experience. Two students were a little less willing to teach in an urban school after the experience, while there was no change in willingness in the remaining 6 students. In written reflections, one student wrote, I have never been in such a culturally diverse school before, and I am very glad that this service learning project gave me that experience. Teaching in an urban setting had never crossed my mind before, and now I am ready to think twice.

Conclusion

Service learning did appear to contribute to these students’ sense of cura personalis, care for the
individual, as they expressed new understanding of diverse populations and the importance of knowing the uniqueness of each child. This service learning project possessed the three components of service learning: (a) student’s experience was aligned with course curricula, (b) students worked with a community organization in great need, and (c) students wrote a reflection about the experience. One student’s reflection supported Deblasis’s (2006) finding that service learning went beyond charity work and was a way to practice theoretical knowledge. The student reflected:

When Sister Pat [Director of Service Learning] came into our classroom and told us all the wonderful reasons why volunteering is important I thought, ‘I’ve heard this one before.’ I was skeptical about going there because I didn’t know what to expect. When I went there and really got into the activities, I felt as though this is really what I want to do with my life.

The pedagogical strategy for this service learning project combined the learning goals of the course with the pedagogical opportunities of the service project (Berle, 2006). The students’ reflections supported Walshok’s contention that in service learning, not only the community benefits but also the student, as he or she gains an invaluable source of information, evaluation, and validation of knowledge (Washok, 1999). Many have documented the effectiveness of ample and well-supported field experiences in order to facilitate confidence, commitment and readiness to succeed in teaching in urban schools (Fountain & Evans, 1994; Groulx, 2001). This study demonstrated that similar benefits could occur in well-designed but less supported service learning opportunities as well, opening up additional avenues for faculty to use to build these competencies and dispositions outside of the traditional supervised field experience models.

Students gained experience working with diverse populations while service and learning came together to promote cura personalis, one storybook at a time.

References


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Appendix A

Assignment: Multicultural Literature Assignment
Multicultural literature allows teachers to select books with strong positive images of people from groups that have been marginalized. The table below summarizes some criteria for examining multicultural literature (Mendoza & Reese, 2001).

| 1. Are characters outside the mainstream culture depicted as individuals or caricatures? |
| 2. Does their representation include significant specific cultural information, or does it follow stereotypes? |
| 3. Who has the power in this story? What is the nature of their power and how do they use it? |
| 4. Who has wisdom? What is the nature of their wisdom and how do they use it? |
| 5. How is language used to create images of people of a particular group? How are artistic elements used to create those images? |
| 6. Who has written the story? Who has illustrated it? Are they outside or inside the groups they are presenting? Why are they in a position to know? |
| 7. What do the text and these pictures say about race? Class? Culture? Gender? Age? |
| 8. Does the book go beyond common stereotypes and correct historical errors and omissions? |
| 9. Is the book rich in cultural details? |
| 10. Does the book raise issues about social injustice? |

Assignment:
Go to the library and find two books with multicultural characters. It will be most interesting if you find one book heavy in stereotypes and one book with a rich representation of the culture. For each book write a complete bibliographic entry and brief summary. Then write a critical analysis of the book answering at least five of the questions from the chart above. Number the questions to match the table as you consider that question. Conclude with a paragraph reflecting about what you learned from this assignment. Bring the books to class with you on the day the assignment is due.
Appendix B
Service Learning Experience Survey (2005)
Pre-Experience

Write your Social Security Number in the right hand corner. Please answer the following questions by checking all appropriate answers. We would appreciate any additional explanations for answers that you feel would add to our understandings. Remember, all information will be kept strictly confidential and anonymous.

1. A. ______ Male  ______ Female
   B. Age _________
   C. Expected year of graduation ___________
   D. Race/ethnicity ____________________
   E. Class Level: _____ Freshman  _____ Sophomore  _____ Junior  _____ Senior

2. How would you describe your family’s household income? (check one)
   - Less than $24,999
   - $25,000 to $49,999
   - $50,000 to $99,999
   - $100,000 to $149,999
   - $150,000 or more

3. In what environment have you lived most of your life?
   - _____ Urban
   - _____ Suburban
   - _____ Rural

4. What type of school have you attended most of your life?
   - _____ Rural  Public  _____ Urban Public  _____ Suburban Public
   - _____ Rural  Parochial  _____ Urban Parochial  _____ Suburban Parochial
   - _____ Rural  Private  _____ Urban Private  _____ Suburban Private

5. What is your major? (write your answer)

6. How willing would you be to teach in a urban school?
   - Complete  Neutral  Completely Unwilling  Willing

7. How willing would you be to teach in a suburban school?
   - Complete  Neutral  Completely Unwilling  Willing
8. Please check the reasons listed below (as many that apply) that would contribute to your willingness to seek employment in urban districts. If there are additional reasons not mentioned below, please share them in the space provided. Start with 1 as the most important reason, 2 not as important as 1 but still important, 3 less important than 2.

<table>
<thead>
<tr>
<th>1-most important reason</th>
<th>2-not as important</th>
<th>3-less important than 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available Supplies (technology, copies, texts)</td>
<td>Familiarity in urban setting</td>
<td></td>
</tr>
<tr>
<td>Type of Student</td>
<td>Collaborating teachers</td>
<td></td>
</tr>
<tr>
<td>Prospective influence on student learning</td>
<td>Support of Administrators</td>
<td></td>
</tr>
<tr>
<td>Other (please explain)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. What is one thing you would like to change about urban education?
Write your Social Security Number in the right hand corner. Please answer the following questions by checking all appropriate answers. We would appreciate any additional explanations for answers that you feel would add to our understandings. Remember, all information will be kept strictly confidential and anonymous.

1. A. What is your major?
   _____ Special Education  _____ Childhood Education  _____ Adolescence Education
   _____ Early Childhood  _____ Physical Education  _____ Other (please explain)

   B. What is your minor/concentration?
   _____ Biology  _____ Chemistry  _____ Physics  _____ English  _____ Math
   _____ Social Studies  _____ History  _____ Modern Language  _____ Other

2. How valuable was your experience?
   _____ Extremely Valuable
   _____ Somewhat Valuable
   _____ Not Valuable

2. How willing would you be to teach in a **urban school**?
   0 1 2 3 4 5
   Complete Unwilling Neutral Completely Willing

3. How willing would you be to teach in a **suburban school**?
   0 1 2 3 4 5
   Complete Unwilling Neutral Completely Willing

3. What did you learn about teaching?

4. What did you learn about what **not** to do when you teach?

5. Please check the reasons listed below that would contribute to your willingness to seek employment in **urban** districts. If there are additional reasons not mentioned below, please share them in the space provided. Start with 1 as the most important reason, 2 not as important as 1 but still important, 3 less important than 2.

   1-most important reason  2-not as important  3-less important than 2
   _____ Available Supplies (technology, copies, texts)  _____ Familiarity in urban setting
   _____ Type of Student  _____ Collaborating teachers
   _____ Prospective influence on student learning  _____ Support of Administrators
______ Other (please explain)

6. Do you feel more prepared for teaching in urban schools?
   Yes         No

7. If there were one thing you could change in urban education, what would you change?
Students as Researchers: A Framework for Using Action Research Principles to Improve Instruction

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Many instructors teach courses that prepare students to do research individually or in teams. These instructors also supervise their students’ research projects. Continuous and systematic use of action research principles can help instructors prepare for problems that may develop when students encounter unfamiliar issues at research sites due to their lack of knowledge or to their own assumptions about the sites. Students may also encounter unanticipated difficulties in team collaborations. Action research principles include planning how and what to teach, implementing activities, observing them, reflecting on their efficacy, and then making changes in instructional practices.

While much thought is given to the contents, meaning, and philosophy of a specific course, considerably less effort may be expended to evaluate instruction and student learning during and after a course ends. This severely limits the scope of changes that can be made while the class is in progress and when planning for the next iteration of the course. It also does not help students to use methods to assess their own learning. This paper looks at how an instructor can use action research principles to systematically assess student learning in a graduate course in which students (all educators) collaborate in teams on action research studies at schools or colleges. Action research, according to McNiff and Whitehead (2006), “is a form of inquiry that enables practitioners everywhere to investigate and evaluate their work” (p. 7). It is based on a spiral of action that involves planning, acting, observing, and reflecting (Costello, 2003). The instructor plans an assessment, uses the assessment, observes (i.e., assesses the efficacy of the assessment), and reflects on changes that may be needed. Formative and summative evaluations form a continuous process that gives the instructor feedback to change the course while it is being taught and in the future. Evaluations can also provide data for students about their own thoughts, beliefs, and actions relating to coursework and to their own practice.

Between 2001 and 2006, the writer observed a variety of conflicts and problems within student collaborations and between teams and their research sites. Some issues were related to students’ tightly held assumptions about sites and how to do research. Others related to the nature of the team collaborations, including processes for making decisions and resolving conflicts. To resolve these issues, the instructor needed data to understand the nature of these issues and how to help students confront and resolve them. Over the years, the instructor learned several hard lessons. It was ineffective to try to solve these issues through class or team/instructor conversations using incomplete information. It sometimes produced unintended and negative outcomes. Reflections and other types of formative assessments proved to be a good tool for doing this.

This paper proposes that continuous evaluation processes are critical to an instructor’s success in a course that seeks to help educators become reflective practitioners and researchers. Many instructors in undergraduate and graduate courses do more than teach about specific topics; they also supervise their students’ research. In doing this, they influence the external and internal processes that govern students’ research behaviors. This calls for a different type of pedagogy. Reason and Marshall (2001) recommended process-oriented supervision for working with researchers in graduate courses. The instructor/supervisor assists students to explore themes relating to the students’ own lives and to their research, and to fully engage in a personal process of inquiry. McKernan (1994) suggested that university instructors can act as second-order researchers with students to facilitate a continuous dialogue about research questions and methods.

This article outlines evaluation processes that were planned, implemented, evaluated, and modified in a two-quarter, university-based action research course that the writer taught five times between 2001 and 2006. Instructor-created evaluations, including reflections, assessed the effectiveness of reading materials, activities and assignments, mini lectures, and class discussions. Students also evaluated the efficacy of each team’s collaboration, their use of research methods, their understanding and ability to deal with ethical issues in research, and the understanding of action research. In addition, assessments focused on one of the course’s primary objectives: gauging the student’s commitment to initiating change in his or her own workplace through a collaborative action research process.
Reflection is a form of assessment in a variety of courses – but more so in graduate programs aimed at practitioners or those preparing to be practitioners. Using cycles of reflection can increase the meaningfulness of the students’ research experiences regardless of the type of course. According to Marshall (2001), “self-reflective practice is a necessary core of all inquiry” (p. 433). She depicted deliberate and extensive “self-tracking” methods as enacting cycles of action and reflection to increase learning. From their study of the reflective practices of 6 university professors, McAlpine, Weston, Beauchamp, Wise, and Beauchamp (1999) provided a model for doing reflections based on a circle of continuous interaction between action and knowledge. Goals are at the center of the circle. The elements in the circle are iterative: monitoring, knowledge, decision-making, and action.

Reflection is a key component in the instructor’s action research evaluation cycle. The phases in this cycle are planning how and what to teach, implementing these activities, observing them, reflecting on how to improve their efficacy, and then making changes to the course. The process is continuous. This is consistent with Zuber-Skerritt’s (1992) suggestion that academics study their own practice with graduate students by adopting a spiral of action that involves analyzing the problem, planning interventions, evaluating, reflecting on the outcomes, and repeating the process.

When an instructor supervises student researchers, reflections can help students to express and consider how to deal with the challenges that Mary Brydon-Miller (2002) identified in her work teaching and supervising students who do participatory action research. This type of research emphasizes using research to create positive social change. These challenges include willingness to confront uncertainty, lack of control over the project, the need to be patient and assertive, willingness to be wrong, and to trust that site members are the best interpreters of their own site and of themselves. These are themes that may emerge in a variety of types of research.

Action research cycles or principles and reflective practice are intertwined in some pre-service and in-service programs for schoolteachers (Feldman & Atkin, 1995; Levin & Rock, 2003; Rogers, Noblit, & Ferrell, 1999) and for administrators (Anderson & Jones, 2000). In case studies presented by Kember and Gow (1992), action research principles are used to improve curriculum in university departments. These studies are also an “experiment into the effectiveness of action research as a staff development strategy” (p. 305). The researchers contended that the effectiveness of action research could be measured by student outcomes.
Action Research Course

Introduction to Action Research is required for each cohort of 20 to 30 students who enroll in a doctoral education program in educational leadership at a public research university. Two thirds of each cohort is employed in pre-K–12 schools or districts while the remainder are community college or university administrators or faculty. The mean age of a cohort is 34, while work experience ranges from 3 to 35 years. Only 2 to 3 members of a cohort have prior experience with action research. The course exposes students to action research theory and objectives, data collection methods, ethical issues, and collaborative team processes. The course functions as a “laboratory” for students to enact a full cycle of action research in a team. Learning from these experiences can inform students’ later use of action research in their own workplaces.

Between 2001 and 2006, there were 26 student action research teams composed of 4 to 7 students. They collaborated on an action research project at a school, college, or other type of educational organization. A few teams did research at a site where one of their members was employed, but most projects were done at sites selected by the instructor. Sites were chosen based on the following criteria: several representatives of the site, one or more with positional authority, agreed to provide continuous access and collaboration; sites presented problems that they wanted assistance in studying; and they expressed a need to use research findings.

The action research processes in Introduction to Action Research are consistent with the ones outlined by Costello (2003): “It has a practical, problem-solving emphasis. It involves research, systematic, critical reflection, and action. It aims to improve educational practice. Action is taken to understand, evaluate, and change” (p. 5). The course builds a scaffold around five topics relating to course objectives:

1. Research methods, which include learning how to do interviews, focus groups, transcripts, participant observation and field notes, surveys, and data analysis and presentation.
2. Team collaborations, which emphasizes mindful listening and communication, conflict management, equity in work distribution, leadership and “followership”, making decisions, solving problems, and creating and using a team charter.
3. Ethical issues, put in the context of readings and discussions relating to teamwork and doing research at an educational site. Students also analyze mini cases involving ethical issues in action research and team collaborations.
4. Action research project management, which includes project planning, preparing a memorandum of understanding that includes a project timeline, and doing progress reports.
5. Students’ understanding of action research, which includes their commitment to using action research at their own site to improve practice.

During class sessions, teams reflect on the progress of their action research projects. Students begin to explore practitioner research through reflecting on the pros and cons of doing research at their own workplaces. In class, students discuss issues in doing research at their own sites from the instructor’s content analysis of their reflections. This brings to light some issues that factor into practitioner-based research efforts. Students also review articles written by school and college practitioners about their experiences using action research in their own workplaces.

Course Evaluation Processes

Targeted formative evaluations give instructors just-in-time data to help them to understand students’ immediate needs. It can also provide data for students to reflect about their beliefs, assumptions, and actions and to make their own changes. Students do two-to-three page reflections on collaboration in an action research team and collaborations in their workplaces. A content analysis of these reflections provides individuals and teams with information that they can use to assess their own work and the work of members of their team. Students also examine their beliefs and feelings about action research and those of their peers. Redacted information is given to the team after each member of the group completes an emailed assessment (Individual Team Assessment) of his or her roles and work on the team, the quality of the collaboration, and characteristics of their work with the research site.

Individual Team Assessments illuminated both successes and failures of team collaborative processes. Between 2001 and 2006, 4 of the 26 teams encountered serious difficulties in their collaborations. These were identified through the Individual Team Assessments and requests for help from some team members to the instructor. In three cases, all members (except for the “offender”) traced the source of the problem to one team member who was not doing the work and missing meetings. In the case of the fourth team, one member expressed attitudes that were inconsistent with collaboration. These conflicts were resolved to varying degrees through consultation with the instructor and problem solving involving all members of the team.
Summative assessments explore the impact and appropriateness of reading materials, class discussions and activities, and assignments. This information is used to improve the second quarter of the course and the next course sequence. Near the end of the second course, students do a two-to-three page reflection on the pros and cons of studying their own workplace. This may include a consideration of such factors as politics; leadership; and social, cultural, and structural issues. This information is redacted and the whole class discusses the problems. At the end of the second quarter, each team evaluates the quality of its action research project and the effectiveness of its collaboration on the project. The students also complete a university evaluation form at the end of each quarter. This is used by the university and indicates to faculty how the students rated the class and the instructor on a 3-point scale. It does not present specific information about what succeeded and what did not succeed in a specific course.

The nature of some of the formative and summative methods is metacognitive. They encourage students to examine their own thinking processes and to monitor and modify them. Redacted information on members’ assumptions about working in teams enables team members to examine how their assumptions influence their collaborations and their research at their site.

While formative evaluations include reflections and team assessments, summative evaluations take place at the end of the quarter or at an interval afterwards. They consist of the Presentation Evaluation Form used by students to evaluate team presentations of the completed action research report. For the Assignment Assessment Form, students rate instructional units, readings, and assignments for each quarter. In the Assessment of the Action Research Project, each team evaluates its experiences collaborating on research and working with the site. It also assesses the quality and usefulness of its work. In a two-to-three page reflection on the pros and cons of doing action research at the student’s workplace, the objective is to have students apply what they have learned about action research to the feasibility of doing action research in their own workplaces.

Two evaluations are done one year after the course ends. The status of the implementation of the action research project recommendations at the site is assessed in the Action Research Site Use Survey. Representatives of the sites complete three open-ended questions about how the site used the team’s recommendations. This information is given to the teams. The Student Post-Course Evaluation is a questionnaire that includes five short answer questions, two multiple choice questions, and a question that is scaled 0 (no impact) to 10 (very high impact) about the impact of the action research course on students’ abilities to collaborate successfully with colleagues. This was done in 2005 for action research projects completed in 2004. The 2007 evaluations for the action research projects done in 2006 are in progress.

Tables 1-5 describe the alignment between course topics, learning activities, and formative and summative evaluations. Instructor feedback on some assignments is not included as it lacks a specific evaluative format.

The 2005 Student Post-Course Evaluations for 2004 projects suggest that some students perceive that the action research course influenced some collaborative and research practices at their workplaces. Findings from the Student Post-Course Evaluations are based on questionnaires completed by 27 of the 29 students one year after the end of the course. Forty-four percent of the 27 students said they had done action research at their own worksites in the year since the course ended, while 22% said that they had done action research during the year and planned to do it again. An additional 15% said that they planned to do it in the future. Five students (19%) said that they could not do action research at their sites because of a job change, lack of encouragement from the site, disinterest on the part of the leader, and time constraints. One respondent did not give a reason.

Students reported that after completing the class, the importance of improving their work sites was much higher (7%), higher (30%), and somewhat higher (22%) than prior to the class. None reported a decrease in importance. The impact of the action research course on students’ ability to collaborate successfully with colleagues was reported as very high (11%), higher (44%), and somewhat higher (26%). Respondents could select from very high impact to no impact.

As an assessment tool, the post-course evaluation was perceived as helpful in evoking suggestions for changes in the course. Suggestions included new types of small and large group processes, action research case studies, additional research articles providing examples of action research, doing pilot action research project at the students’ own workplace, and developing ways to be more sensitive to stakeholders. After planning and implementing these suggestions, they were assessed and modified.

The post-course data suggest that the course was perceived as useful to some student/practitioners in one or more ways: in developing collaboration skills, in commitment to change, and in doing action research. It is not known from the data if these practitioners have continued to do action research or the success of their efforts. The responses led to additional class time focusing on workplace action research, including developing a climate for collaborative action research.
### Table 1
Course Topic: Research Methods

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readings, lectures, discussions</td>
<td>Assignment Assessment Form, University Course Evaluation</td>
</tr>
<tr>
<td>Practice interviews, focus groups</td>
<td>Interview transcript</td>
</tr>
<tr>
<td>Participant observation</td>
<td>Fieldnote assignment</td>
</tr>
<tr>
<td>Design project with site</td>
<td>Discussion of content analysis of reflections</td>
</tr>
<tr>
<td>Data analysis and conclusions</td>
<td>Team Assessment of Action Research Project, Site Use Survey</td>
</tr>
</tbody>
</table>

### Table 2
Course Topic: Working in Teams

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readings, lectures, discussions</td>
<td>Assignment Assessment Form, University Course Evaluation</td>
</tr>
<tr>
<td>Team Charter</td>
<td></td>
</tr>
<tr>
<td>Assumptions worksheet</td>
<td>Team discussion of redacted team assessments and assumptions</td>
</tr>
<tr>
<td>Individual Team Assessments</td>
<td>Team discussion of redacted team assessment</td>
</tr>
<tr>
<td>Team designs and carries out project</td>
<td>Reflections</td>
</tr>
<tr>
<td>Case study analysis of ethical issues in action research</td>
<td>Team discussions</td>
</tr>
</tbody>
</table>

### Table 3
Course Topic: Ethical Issues in Action Research

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readings, group discussions, examples of ethical issues in practitioner research, in-class team status reports</td>
<td>Assignment Assessment Form, University Course Evaluation</td>
</tr>
<tr>
<td>Analysis of case study</td>
<td>Evaluation by instructor</td>
</tr>
<tr>
<td>Respond to ethical issues at action research site</td>
<td>Reflections</td>
</tr>
<tr>
<td></td>
<td>Team Assessment of Action Research Project</td>
</tr>
</tbody>
</table>
Table 4
Course Topic: Managing the Action Research Project

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readings, lectures, discussions</td>
<td>Assignment Assessment Form,</td>
</tr>
<tr>
<td>Project management</td>
<td>University Course Evaluation</td>
</tr>
<tr>
<td>Create a problem statement and memorandum of understanding</td>
<td>Feedback from instructor</td>
</tr>
<tr>
<td>Oral team status reports (reflective)</td>
<td>Assessment of Action Research Project</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Written team progress reports</td>
<td></td>
</tr>
<tr>
<td>Team report presentation</td>
<td>Presentation evaluation form</td>
</tr>
<tr>
<td>Individual team assessments</td>
<td>Team discussion of redacted team</td>
</tr>
<tr>
<td>Team report presentation</td>
<td>assessment data</td>
</tr>
<tr>
<td>Team Assessment of Action Research Project</td>
<td></td>
</tr>
</tbody>
</table>

Table 5
Course Topic: Understanding Action Research

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readings, lectures, discussions</td>
<td>Reflection – Pros and Cons of Doing Workplace Action Research</td>
</tr>
<tr>
<td>Team presentations of Action Research Project</td>
<td>Presentation Evaluation Form</td>
</tr>
<tr>
<td>Action Research Project Report</td>
<td>Team Assessment of Action Research Project, Site Use Survey, Student Post-Course Evaluation</td>
</tr>
</tbody>
</table>

The six research sites varied in how they used the action research reports. Research on student recruitment for high school academies was done for a large school district. Feedback included, “The outcomes of the action research project were helpful in helping us to obtain additional hard data on the academy as it relates to student outcomes,” and, “The academy teachers used some of the data in their year-end reports and to help with summer planning.” The site representative was an assistant superintendent who noted, “It confirmed some things and helped us to look at others differently.” The district planned to use data from the report to recruit students. A college residential life office used the report to implement training for staff and for campus safety officers. The site representative gave the action research report to the college’s senior staff but said, “I do not know if it was read.” The college’s image emerged as a theme during the study. The site representative was surprised to find out that data included information about a topic that was not part of the original charge but was of great interest to the college.

Two of the research sites were units within a university medical school. One study looked at professionalism and contributed to the school’s database for a self-study. The other studied the use of problem-based learning by medical school faculty in terms of how specific faculty implemented an effective problem-based learning discussion group. The findings informed the development of a workshop that trained facilitators to use problem-based learning. The site representative said that the data would be used in future faculty development workshops.

The fifth site was an organization that employed evidence-based research to create online professional development programs for K–12 teachers. The study looked at what motivates educators to enroll in and complete an online course. Results were shared with program development personnel to use in creating new online programs. The sixth action research team worked with a teachers union to identify key factors that influence work life in a school district. The union wished to use this data to create a survey instrument to
gather district-wide data on teacher work life. It is not known if this instrument was developed or used.

Information from site representatives suggests that the action research reports were helpful in supporting activities that were already planned or underway. Data is limited in that it does not indicate if the reports led to any changes beyond those already planned. A more in-depth survey or a survey done several years after the completion of the action research project may get at this type of information. Responses from the representatives led the instructor to communicate additional information about action research before the start of projects.

Conclusions and Implications

The reader might well ask why more instructors don’t systematically make use of course assessments that go beyond tests and university or department course evaluations. Potential responses include time constraints for students and instructors, organizational culture, lack of knowledge about assessment, and lack of a method for doing assessments. Using a plan, act, observe, and reflect process adopted from action research principles offers college faculty a vehicle for better understanding and improving their own practice and the work of their students both in and out of class. Use of a continuous process involving formative and summative assessments enables instructors to reflect on the course as a whole and on specific aspects of the course. For instance, the teacher can examine readings, large and small assignments during a course, and make appropriate changes. A continuous process can also examine the quality of students’ work, including their research efforts. Through email, the impact of the course can be explored at intervals after the course ends. These assessments can help the instructor estimate the effectiveness of the assessments themselves and of the changes implemented because of the assessments.

In-class discussions of assessments and the continuous use of assessment data by instructors and their students provide a model for improving practice in a wide range of professions. Assessment of practice can become a habit that informs practice. Focused formative and summative assessments offer alternative sources of data for practitioners that cannot be elicited solely through tests. They can be developed and monitored by faculty and hold the promise of aiding teachers and students to use a metacognitive approach to their own learning. This helps both students and their instructors to understand their own actions and responses as they occur. Through a continuous assessment process, practice can be data-driven.

References


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Service Learning + New Master of Public Health Student = Challenges for the Professor

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While there are recognized and demonstrated benefits of service learning for student outcomes, challenges professors may face using such approach for competency-based teaching have seldom been discussed. This paper describes the integration of service-learning pedagogy in teaching a project-based course on program planning to new Masters of Public Health (MPH) students. In addition to the benefits of learning outcomes, challenges from the students’ perspective are described. More importantly, challenges that many professors may face when incorporating service learning into instruction are discussed. These include heavy time commitment, new MPH students with diverse backgrounds, and student anxiety. Strategies used to address these challenges are also shared, such as plan in advance, acknowledge challenges and provide resources, develop guided instructions, and tailor to students’ stages of learning. Students’ feedback and responses to the overall course and these strategies are presented. This paper aims to encourage more dialogue on using service-learning pedagogy in higher education and help instructors be prepared to deal with some of the more complex issues when infusing such pedagogy among new graduate students.

Service learning is a community-based approach to teaching and learning that can be a useful tool for expanding the walls of the traditional classroom. It provides opportunities for students to discover linkages between theory and practice in authentic settings. In addition, it provides active learning, team building, and collaboration opportunities on interdisciplinary projects (Seifer, 1998).

Service learning has been defined as “a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities” (National Service-Learning Clearinghouse, 2007, ¶ 2). Partnerships between academic institutions and communities can foster mutually beneficial situations for students, the educational institution, as well as the community. Cashman, Hale, Candib, Nimiroski, and Brookings (2004) noted that one of the main reasons many institutions develop or expand partnerships, with the aim of realizing mutual benefit, is the worsening mismatch between resources and needs. Service learning is a method for students to learn and develop through active participation in organized service experiences that meet actual community needs. These academically based community service opportunities provide students structured learning experience with intentional learning objectives and structured time for reflection to enhance what is taught in class by extending student learning beyond the classroom into the real-world settings (Cauley, Canfield, Clasen, Dobbins, Hemphill, Jaballas, et al., 2001).

Although staying in the classroom is safer than going out to the community, it is often difficult for students to work with hypothetical issues when it comes to planning, designing, and evaluating health programs. Real life contexts and interactions with community partners could help students think through details of program planning and deepen their learning. As differentiated from other teaching approaches, service-learning activities are experiential in nature; such learning often strengthens students’ openness to diversity, promotes deeper understanding of course material, and provides results sustained for years after the experience has occurred (Butin, 2006). At the same time, challenges exist, such as constraining academic calendars and student schedules, ensuring that students are resources as well as learners, building effective collaborations, and sharing understanding of the approach. There is limited documentation on these and other service-learning related challenges (Cashman et al., 2004; Karasik, 2007).

This paper describes how the academic content and community-based learning assignments work together to provide a hands-on process of utilizing the health promotion planning model in conducting community needs and assets assessments. It highlights student benefits and challenges but, at the same time, points out instructor challenges. In addition, the paper describes some strategies the instructor used to address those challenges, and assess student feedback toward some of those strategies. While there are recognized benefits of service learning, challenges professors may face using such an approach for competency-based teaching have seldom been discussed. This paper aims to help instructors better prepared to deal with some of the more complex issues when using such pedagogy.
Method

Course Overview and Pedagogy

The course focuses on health promotion program planning. It discusses process and factors related to public health program planning in a variety of settings. Weekly lectures and discussions guide students through the various phases of the classic health promotion planning model – PRECEDE-PROCEED, a theoretically robust model for comprehensive health promotion planning (Green & Kreuter, 2005). PRECEDE stands for Predisposing, Reinforcing, and Enabling Constructs in Educational/Ecological Diagnosis and Evaluation; and PROCEED refers to Policy, Regulatory and Organizational Constructs in Educational and Environmental Development. The fundamental propositions hold that health and health risks have multiple determinants. Therefore, efforts to affect behavioral, environmental, and social change must be multi-dimensional. Key phases of the model include assessment at social, epidemiological, behavioral, and environmental; educational and ecological; administrative and policy aspects; as well as planning for program implementation and evaluation.

In the planning course, via learning and working with pre-selected or student-identified community partners, students apply knowledge and skills learned to identify and analyze needs and assets in the community. The final product is a comprehensive needs assessment report, guided by the planning model, along with recommendation strategies to utilize existing community assets to address the identified health needs.

The service learning pedagogy enabled students to make early connections between coursework and their professional services to the communities and their roles as citizens. Engaged students learned the context for their professional service and this increased the quality and relevance of their project reports. The course was structured around carefully designed learning opportunities and collaborative projects to facilitate students to think critically and write thoughtfully. Students worked in small groups to complete their needs assessment projects. Community partners included, but were not limited to, public health departments, community cancer support centers, regional hospitals, HIV/AIDS social service agencies, and senior centers.

Student Reflection Assessment and Analyses

Each student submitted individual reflection journals (regarding their perspective on the group project) at mid-term and at the end of the project. The planning course is offered every year to all Master of Public Health (MPH) students in their first semester as one of the core courses. The number of students enrolled in the course varied each year and ranged from 16 to 45. Students’ individual reflections and comments collected during 2003-2007 were included in the current analyses (total n = 105).

A reflection guide with open-ended probing questions was provided to facilitate student documentation of their learning and their service-learning project experience. Students were reminded that reflection is a critical part of their learning to become public health professionals and there was no right or wrong response. In addition, students were told that their reflections could be very individual and it is common they might have a different learning experience than their peer even if working with the same project. Sample guiding questions included the following:

- While working on the community service-learning project, what are things you learned in terms of program planning?
- How did the field assignment, class discussion, group application, or the team work model, etc. help you in learning the program planning process?
- What were things that challenged you the most during the process?
- How the community interactions and academic discussions have had an impact on your learning and your development as an engaged citizen?
- Students were also told they could reflect on any aspect of the experience and these probing questions were meant as a guide.

The inductive, descriptive analyses were conducted using an iterative, analytical approach (Patton, 2002). The analysis was carried out through several readings and interpretation of the raw data. Identification of codes was done by open coding, line-by-line scrutiny of the data, and those that appeared to be similar were grouped into categories to further develop working themes. All categories derived from student reflection data were grouped under three major themes that emerged during the analysis: student benefits, student challenges, and feedback on faculty strategies. Selected quotes highlight the specific categories. Faculty challenges and strategies from instructor’s notes were then incorporated into the results section to complete the systematic documentation of the experience of the integration of service-learning into
instruction, both from students’ and instructors’ perspectives.

**Student Benefits**

Community-based education resulted in profound benefits. These benefits were highlighted in the following four areas (categories) that emerged from students’ individual reflections and comments. Please note that the following statements are direct quotes from students, therefore, grammatical errors exist as we sought to honestly present original statements made from students.

*Community focused approach was life-changing*

“It really gives a realistic opportunity to put life into what learned from books and class. We gained knowledge that wouldn’t have come from statistics or readings. We saw a part of community and level of health problems that did not know exist. I was amazed at the level of dysfunction that made their ‘normal home’ environment. We had new appreciation of the issues identified.”

“The experience has really opened my eyes. I have learned a valuable personal lesson about low-income populations that will stay with me for the rest of my life.”

“The involvement with community members was extremely rewarding. Their responses were so much richer and insightful than what I had imagined.”

*Teamwork model stimulated active learning.*

“The entire experience increased our collective creativity as we were able to bounce ideas off one another. … The group dynamic forced virtually constant dialogue which resulted in a variety of different perspectives on the same issue.”

*Guided instructions facilitated knowledge applications*

“Project guidelines clearly laid out the procedure, lectures helped organization, overall course design enhanced the comprehensive learning experience such as grant writing skills, communications, time management, tasks delegation, and to be accountable, etc. “

“The fact that so many projects were discussed and presented helped me gain insight for our project. Working on the paper throughout the entire semester helped the paper take its own shape, flow and be strong.”

*Internalized learning outcomes, increased confidence and self-awareness*

“I am encouraged by how graduate school is starting for me. I have already begun to use the concepts learned to my present work. I am now taking time to consider determinants of behavioral and environment before program design.”

“Upon completion of our project, I feel solid in my understanding and feel confident to apply it outside of the classroom. This project served as a good platform for my career. It helps us gain experience to be more equipped dealing with difficult planning issues in the future.”

**Student Challenges**

Three major challenges of the service learning experience were observed. The so-called *learning-by-doing* model might not fit with the learning style for all students. Furthermore, the ambiguity and unpredictability of the real world and time commitment could cause unavoidable stress for students. Below are some direct quotes from students.

*The learning-by-doing approach*

“The challenge for me was to conduct our needs assessment with the planning model at the same time we were learning it, because we do not know whether we are doing it right all the time.”

*The depth of the planning model*

“It is such an in depth model. This model looks at every angle of a problem and how to solve or approach it. That is a positive thing, yet so labor intensive.”

“The most frustrating part for me was going in with an idea in mind for what we want to do, and then realizing that it may not be what our target group wants is hard to take. Throughout this process I have learned that program planning is not easy.”

*Time commitment and constrains*

“We were challenged in finding time to meet as a group, with community partners, and to get the survey out and interviews done by the deadline for the class report. It was very challenging as all of us have different schedule, and community may not respond in a timely fashion.”
Instructor Challenges and Strategies, and Student Feedback on Strategies

Although many of the described challenges were identified early on and actions were taken prior to and during student engagement, lessons learned from student comments continued to be incorporated into new or modified strategies to help better address those challenges. The section below described experience learned since 2003 regarding integrating service learning into the project-based program planning course. They were summarized as instructor challenges, strategies, and student feedback to strategies.

Instructor challenge (1) – the learning-by-doing model and heavy time commitment for the service learning experience. One major challenge for instructors is the time commitment required to implement the service learning experience (Berle, 2006). This included time required to establish partnerships, supervision and mentoring of students, communication with students and community partners regarding the desired project outcomes, and consideration of time constraints and the type of projects students can work with (Hartwig, 2006).

Instructor strategies (1) – Advanced planning and communication. Advanced planning and communication helped save time later and facilitate student learning. Reed, Jernstedt, Hawley, Reber, and DuBois (2005) argued that the experience can be as brief as a few days and still show significant impact on student learning. To prepare for the service learning opportunity, the instructor communicated in advance with community partners the course objective, project outcome, students’ potential and limitations, commitment needed from the community partners, as well as gain preliminary understanding of specific needs and resources the community may have. In addition to oral communication, a one-page course summary was drafted and emailed to each community partner to help facilitate communication through written information. The immediate feedback from the community indicated this step to be much appreciated.

Student feedback (1) – new appreciation of the experience and efforts go into planning. It was difficult to learn by immersion, but I had found this to be the most effective way to truly understand something new.

“I am leaving this course with a better understanding of the complex process involved with planning and developing an intervention and with an appreciation for all of the hard work that our professor put into teaching the course.”

Instructor challenge (2) – New students with diverse background and challenging meeting time. The majority of the students in the planning course were first-year MPH students from all specialization areas and with diverse backgrounds and levels of experience. Students were normally in their first semester at the graduate school in a new environment. In addition to the relatively heavy course load, this course being their first core class also made the project-based approach challenging. Many students had no previous experience working on such group projects. Furthermore, both the large class size and evening class time, when students were both hungry and exhausted, further increased the stress level. All these student characteristics and external factors posed challenges for instructors using such learning approach.

Instructor strategies (2) – Acknowledging challenges, providing resources, and breaking class into smaller segments. Acknowledging and informing students of the potential challenges or issues they might face could help students get prepared. Challenges previous students encountered were shared by the course instructor via direct quotes from formal students to let current students know that it is normal to feel some ambiguity or uncertainty during the process. Students were reminded that it is okay to share frustrations or anxiety so that all can learn the challenges together and discuss potential strategies. In addition, the course instructor also noted to the students that group experience and dynamics within each group may vary, and the project may not always turn out as expected. Early studies also pointed out that not all students would share the good feeling that comes from helping others, and the client might not view the benefits of the project in the same light as the students (Berle, 2006). Instead, learning the process of applying the planning model to real communities and working with each other as a team should be their main focus. Finally, resources were provided such as tips for writing group assignments, working as a team, and practicing time management to better help student transition into their learning at the graduate school.

In order to deal with the challenging meeting time, class was divided into smaller segments and integrated with activities and exercises for better student engagement. A short lecture with discussions was usually given at the beginning and followed by a break, then small groups broke out for interactive discussions, and finally the whole class shared their learning. Time was usually allocated at the end for project discussions or group consultations. This allocation was viewed as particularly important as students all had different working or course schedules and it was often difficult to find time to meet. Those informal consultation sessions were designed to help alleviate scheduling issues and at the same time provide opportunities to interact with the instructor on a regular basis.
**Student feedback (2) – Instructor’s assistance helped and class time went by fast.**

“A couple of ways that helped me learn was the instructor’s assistance and the knowledge, experience, and inputs from my group members. Assignments also helped us to organize and plan our schedule.”

“I thought the class would be longer, but you made it not as long. Time actually went by fast; dividing the cases into different activities was really effective!”

**Instructor challenges (3) – Student anxiety toward the community project.** Some students were anxious about the community project, not confident enough to interact with real communities, or view the process of “figuring things out” to be unnecessary. These were consistent with earlier studies (Kravetz, 2005). Such perceptions were discouraging, though not surprising. Besides changing student roles, the service learning approach also requires a change in the role of teachers. It is generally difficult for the instructors to plan a curriculum unit as a neat, predictable package as action precedes attempts to synthesize knowledge.

**Instructor strategies (3) – Providing guided instructions and tailoring student’s stage of learning.** Research has found out that if students go into the service learning experience believing that they are likely to make a significant difference, they are likely to become discouraged when their impact does not meet the goals of the course or the community (Kravetz, 2006). On the other hand, if we could emphasize that the service learning experience is a starting point for a deeper understanding of issues concerned by the community and a development of their competencies on needs and capacity assessment to more effectively plan health promotion programs in the future, we can provide powerful experiential learning opportunities for students. Based on previous students’ comments and feedback, as well as considerable input from other faculty members, the planning course has been continuously modified to address some of these challenges. Strategies to provide more guidance included, but were not limited to, the following: (a) adding case studies and an additional resource book to provide examples of various assessment strategies; (b) developing guided worksheets and in-class exercises. A series of worksheets, corresponding to the steps and processes discussed in class, as well as their final paper requirements, were carefully developed to provide additional guidance and directions; (c) adding exams to ensure proper individual preparation for their group discussions; (d) providing previous student papers as examples to help students visualize the expected final product; and (e) allocating class time for group discussions or consultations. Furthermore, the required assignments were also modified to tailor to students’ stage of learning. Specifically, the timing of field assessment was further delayed to provide more preparation time. The rationale of service learning pedagogy was also explicitly explained in the first class.

**Student feedback (3) – Guided instructions were effective to facilitate applications.**

“I like how the concept are being applied and learned. I like to learn about a concept and then be given a worksheet and then go out and apply what we’ve learned and discussed. It provided us with specific goals and tasks, and breaks the course down into manageable steps.”

“It was not easy to apply theoretical issues to community, but the readings and worksheets really helped us not getting off track and guided in what to look for; we were able to progress through the model, although not in a linear way, the class and group discussions were really helpful.”

**Conclusion**

Despite some challenges from students regarding the amount of work and level of anxiety in working with real communities, and occasionally an organization that turned out to be not a good fit, the planning course using the service learning pedagogy was a worthwhile experience for most students. Such design, although labor intensive both for instructors and students, helped deepen student learning. This was evident through many indicators observed: (a) Nearly 90% of the students expressed increased self-efficacy at the end of the course; (b) About 30-40% of the students had already used skills learned to their work; and (c) Almost 20% had used these service learning experiences to apply for scholarships externally. The final needs assessment planning reports often gave students a high sense of satisfaction and accomplishment, and a quality product they bragged about throughout their program of study. In addition, the service learning opportunity made the classroom discussion more concrete and gave students more confidence in the subsequent course of program development and implementation. Students often drew upon their experience in the planning course during their development of theory and evidence-based interventions in the subsequent implementation course.

Students learned knowledge and skills in ways they otherwise wouldn’t. When they worked in group and applied things learned, and figured things out for themselves, they remembered them. Students made discoveries and experimented with knowledge themselves instead of hearing or reading about the
experiences of others. Students also reflected on their experiences, thus developed new attitudes and new ways of thinking. Furthermore, the service learning experience enabled students to learn more about the community in which they lived, to receive mentorship from community partners and the course instructor, as well as to learn to negotiate roles, responsibilities, and work through conflict with peers and, occasionally, their community partners.

This paper provides the much needed dialogue on benefits, challenges, and strategies from both students’ and instructors’ perspectives. Challenges professors may face were noted, and student feedback on some of the strategies used showed positive responses. The infusion of service learning opportunities in teaching project-based course is effective and demonstrates profound impact on student learning.

References


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Learning to Teach the Creative Arts in Primary Schools Through Community Engagement

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Community engagement has been used for many years to enhance and strengthen teacher education courses, preparing student teachers with real life learning experiences as they work with community groups in mutually beneficial projects. This research examines a community engagement project that involved 13 undergraduate creative arts students who were planning to enroll in a post-graduate teacher education degree course when they had completed their initial degree. The students were placed in a primary school to work on a variety of creative arts-based projects with a range of teachers and classes with the aim of learning skills, knowledge, and strategies about teaching in relation to the creative arts. Outcomes from the project included an increasing confidence and competence in relation to teaching skills, knowledge, and strategies by the students as they were involved in the action – reflection cycle of community engagement. The school community also benefited from the project as children were developing creative arts skills and knowledge as they worked with the university students, and the teachers gained new ideas in relation to implementing the creative arts in their classrooms.

Community engagement seeks to link university students with community agencies to provide mutually beneficial experiences, knowledge and outcomes, guided by reflection (McCarthy, 2003). As the university students are involved in community engagement service projects within the agency, they are encouraged by their lecturers to reflect on their own learning as part of their university course. McCarthy (2003) defined academic service learning, or community engagement, as “linking academic instruction with community service, guided by reflection” (p. 1) and it is this ongoing reflection that sets service learning outside the parameters of work experience or volunteering in the community.

McCarthy’s model (2003) is based on the thesis that students gain both positive and negative experiences through their involvement with community agencies, each other, their lecturer and the larger community. They bring their knowledge from past experiences to their community engagements, and also gain knowledge from their participation in, and the processes of, the service learning experiences. As they reflect on these, they actively engage with their thoughts, feelings and actions and through this, put their experiences into context, making connections with their knowledge and their experiences. This case study seeks to suggest a fourth aspect of community engagement, that of change. As students reflect on their experiences and knowledge, this often gives them the impetus to bring about change in both their personal and professional lives, as well as within the community agency in which they are working.

Community Engagement

Community engagement has been used for many years to enhance and strengthen teacher education courses, to provide authentic learning experiences for the students and to enhance community life (Swick, 2001). It can also link university students with their local community, combining service and learning to meet the mutually defined needs of each of the parties involved (Schaffer, Mather, & Gustafson, 2000). It allows students to participate in the active engagement of the learning process and to interact with other people for authentic purposes in order to achieve definable goals as they develop skills and knowledge not necessarily developed in the normal university lecture or tutorial setting (Dudderar & Stover, 2003).

As they engage in community engagement, students develop skills in personal reflection, as well as self-confidence, sense of civic responsibility and interpersonal skills. Community engagement can be successfully integrated into course content in a variety of curriculum areas and so enhance students’ understanding, practice and skills in these subjects (Wells & Grabert, 2004). Involvement in community service projects can also be used to help students planning to be teachers increase their own language and communication skills as they interact with children from diverse cultures and develop understanding of the different backgrounds from which these children come (Meaney, Bohler, Scott, & Hernandez, 2005). McCarthy (2003) summed up the pedagogical approach of community service by stating that the basic, interdependent components of service learning are
experience, reflection, and knowledge. This case study used these three aspects as foundational tools to consolidate and enhance the students’ learning.

Throughout their community engagement project, the students focused on teaching the creative arts in the primary school. Learning the arts for arts sake is vitally important (Mahlmann, n.d.; Mills, 1998). Children need to experience and understand the complexity and beauty of the world of music, drama, dance, and visual arts for themselves. Being involved in the arts gives children the tools for lifelong learning within the arts so they have the opportunity for pleasure and for self-development, creativity, and self-expression, opening up a range of new experiences and opportunities they may have never realized existed (Combs, 1991; Russell-Bowie, 2006). However, quality arts programs also have far-reaching tangential effects that influence every aspect of children’s lives, both inside and outside of school, and give them a deeper understanding of themselves and others (Oddliefson, 1994; Ultan, 1989). The arts enhance children’s academic achievement (Combs, 1991; Fiske, 1999; Jensen, 2001), help them develop respect for themselves and others (Mahlmann, n.d.), give them training for life (Perrin, 1994), and provide them with valid ways for self-expression (Mills, 1998; Russell-Bowie, 2006). These were some of the reasons for ensuring the students were involved in the creative arts within this project.

**Aims of the “MMADD about the Arts” Project**

This case study examined an innovative and challenging community service project that involved 13 undergraduate students who were planning to enroll in a post-graduate teacher education degree course when they had completed their initial degree. The students had no teacher training but were keen to be involved in a school situation. They were placed in a primary school to work on a variety of creative arts-based projects with a range of teachers and classes, with no payment being made to the teachers, as the program was planned to be mutually beneficial. The primary school was selected because the lecturer had built up positive relationships with the staff and was thus able to get permission for the whole school to be involved in this project. The creative arts community service project within the school was called MMADD about the Arts, with the acrostic MMADD indicating the five art forms in which they would be involved: Music, Media, Arts, Dance, and Drama.

Community engagement in this context was used to give the future teacher-education students experiences to socialize them into the culture of the primary school and also give them the opportunity to gain first-hand experience of working in a primary school (Swick, 2001). The projects also aimed at helping them gain knowledge about teaching strategies, pedagogy, behavior management and subject content within the creative arts (Dudderar & Stover, 2003) and throughout the unit, students were asked to reflect on various facets of being a teacher, through observation, research, practical experiences, and talking with the teachers and children (McCarthy, 2003).

**Context and Participants**

The school. The school involved in this community service project (named Greentree Public School for this paper) is located in a low socio-economic area with 87% of children coming from a non-English speaking (mainly Arabic) background. Many of the teachers lacked confidence in implementing a creative arts program due to the lack of resources, time, training, priority in teacher education courses and primary schools, and as a consequence are often ineffectively taught or not taught at all on a regular basis in the classroom (Jeanneret, 1997; Lepherd, n.d.; Mills, 1989).

The students. The 13 students who undertook the creative arts community service project were all enrolled in undergraduate degrees and were planning to enroll in the Bachelor of Teaching postgraduate course when they had completed their first degree. This was their only path to becoming primary school teachers, as the university no longer offered an undergraduate teacher education program. Most of the students had experience, expertise, and interest in one or more of the art forms and all were eager to receive hands-on experience within the primary school setting.

The university subject. As part of their undergraduate degree, students could enroll in a 20 credit point unit called Learning through Community Service, which was equivalent in length and rigor to two university units and was spread over a 5-month period. The unit was organized by cohorts, or strands, that represented disciplines across the College of Arts; these included International Buddies, mentoring of university students requiring assistance in literacy skills, ESL mentoring of recent immigrants in local communities, video-making and the creative arts education project, and MMADD about the Arts. Thirteen students completed this creative arts project within the Learning Through Community Service unit and were based at Greentree Public School.

**Methodology**

As part of a case study approach, the students completed surveys, reflections, and assignments, in
order to ascertain what learning was occurring within the MMADD about the Arts project, and the students took the role of participant-observers. In the introductory on-campus session, they completed a qualitative survey in which they indicated their experiences in teaching and in the arts and their anticipated outcomes from the unit.

During the 14 weeks of semester, the students completed at least 80 hours in the school setting, and were involved in one or more creative arts projects, which included team teaching creative arts lessons with the teacher, organizing a children’s art exhibition in the community, running creative arts workshops in an After School Arts Program, and participating in a Creative Arts Fun day across the whole school. Every 3 weeks, they wrote a reflection to document their learning in relation to the context of their projects; the learning experiences in which they were involved; the classroom management strategies they were observing and practicing; and their evaluation of the learning within the project for themselves, the children, the staff, and the local community. A final assignment summarized and analyzed these reflections and allowed them to develop a synthesis of their learning throughout the unit as they articulated their own philosophy of teaching. Throughout the semester, the students were also involved in observation, consultation, peer assessment, and interviewing teachers about the outcomes of the different projects in relation to themselves, the children, the staff, and the school community.

In the final on-campus session, the students completed a qualitative survey indicating what they had learned from being involved in the different MMADD about the Arts projects.

**MMADD about the Arts: Experiences**

McCarthy (2003) states that the basic, interdependent components of service learning are experience, knowledge, and reflection. In relation to experiences, within the MMADD About the Arts strand of the Learning Through Community Service unit, the students initially met with their lecturer for 3 days of intensive on-campus sessions that included lectures on the concept of community service and experiential workshops relating to creative arts education. The principal of the school came to speak to the students and answer any questions, and DVDs and photos were shown of the children from the school involved in creative arts activities to give them the context of their projects. A questionnaire completed by the students indicated their experience and interest in the arts and a survey completed by the teachers from the school indicated in what areas they would like the students to work throughout the school. From this information, three main projects were developed and implemented by the university students, within the school community; these included the following:

1. **Artistes in Residence: Training in Schools (ARTS).** Within this project, the university students worked 1 day a week or 2 half days in a local school, in one or more of their selected art forms and in one or more classes throughout the school. The university students and teachers worked together to plan how their skills and knowledge would be used effectively throughout the day.

   The university students could work with one class throughout the day, or across one stage, or in a variety of classes. Some of the ways the students, teachers, and children worked together in the creative arts each day included

   - Thematic team teaching with the class teacher, using a theme integrating music, art, media, dance and/or drama to enhance literacy skills;
   - Kinderarts: using the five art forms to support what was being taught within the Kindergarten curriculum to deepen learning and engage the children more effectively;
   - Team teaching lessons with the class teacher on the selected art form(s) to a class.
   - Working towards a Creative Arts Fun Day or Harmony Day where all children in the school were involved in creative arts activities throughout the day, organized and implemented by the university students.
   - Big books for Little Kids: working with a small group of children to write a children’s story, publish it in a large format, illustrate it, practise a Reader’s Theatre for it and add appropriate instruments to represent the characters and events in the story. The children would then put this all together and present it to the Kindergarten classes, as well as local pre-schools in the area.

2. **After School Arts Program (ASAP).** The university students were involved in running creative arts workshops after school in their selected art form(s) with teachers and Year 5 and 6 children from the school. This program was offered for one and a half hours each week on Thursday afternoons; the university students were expected to attend and work with the children and teachers for at least 12 sessions. They were to be responsible for team (or individual) teaching a group of 6 - 8 children from years 5 and 6 in one of the art forms; as well as teaching, the students organized resources for each session, set these up and cleared them away, and reflected on each session and the overall program. Each set of learning experiences were planned to continue over 3 weeks with one group of children, repeated for the next group of children over
the following 3 weeks, then repeated a third time with a new group of children.

3. Kids Art in the Community (KAIC). The university students worked with teachers and children from local schools to develop, curate, and coordinate an art exhibition in the local community. Children from local schools would be invited to be involved in art workshops on a community-relevant theme, as they prepared for this exhibition. The resulting artworks were hung in selected shops and community buildings in the local suburb for several weeks after the launch. As part of this project, university students were involved in

- contacting each school with information about the workshops and exhibition;
- running art workshops on the given theme in each participating school and/or class;
- approaching the local shopping centre and asking them to exhibit children’s artworks;
- collecting, framing, and curating the artworks to create the exhibition;
- publicizing the workshops and exhibition;
- reflecting on the effectiveness of the workshops and exhibition.

MMADD about the Arts: Knowledge

The second component of community service is knowledge (McCarthy, 2003). As part of the introductory on-campus sessions, the students learned through lectures and workshops the underlying concepts of service learning as well as the basic elements of each of the creative art forms. They also learned about integrating the arts through being involved in the implementation of practical thematic creative arts units during the workshops and interacting with the principal and lecturer around a variety of discussion topics.

Another source of knowledge for the students was their set text, which provided them with a theoretical foundation for teaching the creative arts, as well as many practical ideas for teaching each of the art forms and integrating the arts within the classroom. As well, students were encouraged to research the content for any lessons in which they were involved while at the school and through this, many learned new skills and consolidated previous learning within the arts.

The students also discussed their own classroom interaction with their teachers to gain pointers for improvement and suggestions for future lessons. These discussions formed for the students a solid foundation of knowledge about pedagogy and teaching philosophies that they gradually put into practice and internalized.

As well as gaining knowledge through their involvement in the program, students also brought their own knowledge about the creative arts to the school. Some students had specific and developed skills in one or more art forms, while others had a more general knowledge of the arts. Some students brought to the program their own life experiences of working with children in different out-of-school settings, while others brought their knowledge gained from their experiences as parents. All of this knowledge was recognized, valued, and used as they worked and reflected throughout the project.

MMADD about the Arts: Reflection

Reflection is the third component of community service (McCarthy, 2003), and, therefore, the students were required to reflect in various aspects of their learning experiences within the school community throughout their time there. These reflections were each focused on a different aspect of learning to teach, as follows:

Reflection 1: Situational analysis. In this assignment students reflected on and described the contextual description of the school and gave an overview of the projects in which they were to be involved.

Reflection 2: Planned learning experiences. In this assignment, students were required to reflect on themselves as learners and teachers, their observations of the staff and children with whom they worked, the teaching and learning environments they observed, and the content, resources and outcomes related to the learning experiences they prepared and taught.

Reflection 3: Reflections on management strategies. Students were asked to reflect on the management strategies used by their teachers and by themselves, in relation to the acronym of CREATIVe classroom management model (Russell-Bowie, 2006) and current research (i.e., reflections were focused on Children; Rewards, rules and routines; Environment; Attitudes; Time and resource management; Interactive activities; Variety; and Enthusiasm).

Reflection 4: Reflections on learning within the project. Students were also asked to reflect on and evaluate the value of the experiences in which they have participated, using a variety of assessment and evaluation measures (e.g., observations, consultation, using outcomes and indicators, self-assessment and peer-assessment).

Final Portfolio. As a culminating synthesis of their learning experiences, and based on their previous four reflections, students were required to reflect on why they wanted to be a teacher, what they considered to be a good teacher, and what was their understanding of the process of learning.
Results

Throughout this Learning Through Community Service project, service learning was used to enhance and provide a strong foundation for the students’ future involvement in teacher education courses, as well as providing authentic learning experiences for the students and enhancing the community life of the school (Swick, 2001). It allowed students to be involved in the active engagement of the learning process and to interact with other people for authentic purposes in order to achieve definable goals as they developed skills and knowledge not necessarily developed in the normal teacher education lecture/tutorial setting (Dudderar & Stover, 2003). The unit emphasized the three important foundations of service learning, that of experience, reflection, and knowledge (McCarthy, 2003) and these were key themes arising from the students’ analysis of the outcomes of the unit. All involved with the project felt that it was a mutually valuable and significant learning experience for children, student teachers, and classroom teachers alike.

The students gained practical knowledge and reflected regularly on their experiences. One student commented,

This subject had given an opportunity to the university students to gain hands on experience and get a better understanding of what teaching would be like. It also gave us the opportunity to participate in a wonderful program that allows us to use our experience and knowledge to give back to a school that would normally go without, all with attaining academic recognition. … It confirms that I made the right decision to study to become a teacher and I know that I have learnt many valuable tools and resources that will give me a head start when I do my teacher education course and it has also given me confidence in myself.

Changes in Students

Service learning can be used to enhance and strengthen teacher education courses and to provide authentic learning experiences for the students (Swick, 2001). As part of their reflections, students reflected on the changes in their personal and professional life as a result of participating in this unit. Part of this involved reflecting on their development and learning throughout the unit, which included a recognition that they had learned much about teaching, their confidence and competence had increased significantly, they had confirmation that they wanted to be teachers and they learned about the importance of teaching the creative arts.

Changes in confidence and competence. Each of the students noted throughout the semester that they had developed significantly in relation to their confidence and competence in the classroom:

I have noticed immense changes in my confidence and competence within my teaching experience at the school. I was initially nervous and anxious but now I just feel motivated, excited and very comfortable teaching. (DH)

Changes in understandings and practices in relation to teaching. The students indicated that having the practical, hands on experience of working in a classroom alongside an experienced teacher helped them learn key teaching skills and strategies and attitudes. One student commented:

Hands-on teaching, being thrown into the ‘deep end’ and having no previous teaching experience or learning education has made me realize that with a bit of help and study we can achieve anything that we set our minds to. At first we were overwhelmed, but now we are able to say that we can plan a lesson, consult with a teacher and experience a wonderful school! (EC)

Changing and confirming their chosen career. Several students indicated that they had decided to become teachers, although they had initially been hesitant about this career choice, and one student changed from planning to be a psychologist to becoming a primary school teacher. This confirmation about their chosen career was summed up by one student:

I remember my first day in the Kindergarten classroom where we were just helping the teacher. I thought the children were all so lovely but I never remotely thought I would want to teach Kindergarten. As the weeks progressed, I couldn’t believe my change in thinking towards these children. I really loved teaching children and they responded very well to me. This came about as an increase in confidence, positive reinforcement from my teacher as well as chatting with her about what she thought of my lesson plans, and perhaps most importantly, bouncing ideas and getting suggestions from other students. (DD)

Changes in practices in relation to teaching the creative arts. All the students indicated throughout the semester that they had learned a significant amount of teaching strategies, especially in relation to teaching the creative arts.
I feel I have learned so much in the last 10 weeks and I feel comfortable that I would be able to integrate a quality arts program into my own teaching pedagogy. This practical experience has really made me realize just how important the arts are and what children get out of a good arts program. Initially I thought the arts was (sic) just painting etc, now I realize there is so much more to that, the arts build on children’s life skills and give them tools to negotiate the adult world. Children are given a safe space to practice these new skills and become well educated, accepting adults. It will be an experience I will never forget. (AS)

**Job opportunities.** As a direct result of their involvement in this unit, one student took up a position at the school as a creative arts teacher for pre-school children, one day a week, another was accepted as a creative arts teacher one day a week at a special school and a third student is looking for a part time work as a teacher’s aide during her undergraduate course.

**Change in Classroom Practice for the Teachers**

Community service projects allow students to be involved in the active engagement of the learning process and to interact with other people for authentic purposes (Dudderar & Stover, 2003). Teachers were also asked about the benefits they received by having the university students actively engaging with them in their classes; these included that they had new ideas and inspiration about teaching the creative arts, and that they appreciated having other adults in the classroom so they could work individually with children.

**Inspired to teach more creative arts.** Some teachers had initially been hesitant to include the arts in their weekly programs but, after their involvement with the children in their classrooms, they started to think that they could include similar creative arts activities for their children. Students noted this change in attitude as follows:

Some of the staff have said they would feel more comfortable teaching a creative arts lesson now after seeing my lessons and experiencing the arts in a simple, yet effective way. (JC)

**Extra pairs of hands.** The staff appreciated having another adult in the classroom to assist them with teaching the arts, as noted by some students:

Mrs. C informed us that she only does painting when we are in the classroom to help. She enjoys having us in her classroom as it is a new experience for her class, and she is able to work on other projects, such as individually testing each student on their numbers and letters. (AD)

**Changes in Children’s Experiences and Development**

The arts enhance children’s academic achievement, develop respect for themselves and others, give them training for life, and provide them with valid ways for self-expression (Russell-Bowie, 2006). Through observation and consultation, the students and teachers noted that many children had developed academically, emotionally, socially, and artistically as a result of being involved in the creative arts learning experiences provided by the program. Students’ comments about the development of children’s learning and outcomes as a result of being involved in the creative arts, were categorized under the four headings of academic achievement, respect for self and others, training for life, and self-expression.

**Academic achievement.** Students indicated that their teachers had said the children had been involved in experiences they had not had before and that individual children had changed significantly for the better academically as a result of the University students teaching the arts lessons. For example, one student noted,

Their teacher told me that through involvement through the arts, the ESL children have improved in every aspect of learning new vocabulary and speech. (CF)

**Respect for self and others.** Students also reported that many children had developed social skills and respect for others as a result of participating in the arts lessons:

Through the arts I was able to reinforce concepts the children were learning, and also help to teach them respect for each other, such as listening to each other, turn taking and sharing. (ER)

**Training for life.** The students reported that the children with whom they worked had developed and improved in generic skills such as listening skills, team work, problem solving, patience, and willingness to learn:

Through the dance lessons, the children were developing team work, positive reinforcement and turn taking skills, all of which are important in the adult world. (PL)

**Self-expression.** As a result of participating in the arts lessons, the students indicated that the children
were able to develop and use their self-expression more than previously:

Through music, art, drama and dance, I was able to stimulate children’s imagination and creativity and as a result the children learned how to keep focus and how to communicate with themselves and others through different mediums. (SO)

**Outcomes for the School Community**

Community engagement can link university students with their local community, combining service and learning to meet the mutually defined needs of each of the parties involved (Schaffer, Mather, & Gustafson, 2000). The children, parents, and staff also commented on the benefits received by the school community from the university students being involved in the creative arts community service project. After talking to some parents of the children they had been teaching throughout the semester, the students commented,

I found that the parents thought that teaching creative arts in school was a good idea because it keeps the children active and doing things that are enjoyable, while at the same time getting the basic learning skills necessary for the rest of their lives. (BT)

The parents commented to me about how much their children had enjoyed the drumming classes and they enjoyed seeing their children involved in such a fun and productive class. (DD)

I was under the impression that parents wouldn’t be too keen on their children doing something a bit different to their set school curriculum. However, after Harmony Day, and all the different creative arts activities all of us university students assisted in, the response from the parents was amazing, they were so pleased that their children were involved in so many different activities associated with so many different cultures. (SH)

**Challenges and Changes**

Although there were very few negative comments about the community engagement projects, from the students, teachers or children, there were some challenges noted by the lecturer involved. Firstly, there had been one instance of a personality clash between a small group of students and a teacher. Secondly, timetabling commitments meant it was impossible for the lecturer to meet with all students together except in the initial on-campus workshops. Thirdly, it was a challenge for some students to see their commitment to the school, teachers, and children as MORE than just completing a university subject, and, finally, there were almost too many students for the one small school.

In response to these challenges, the next time the unit was offered the following actions were implemented:

- Instigation of a weekly online e-journal which was not assessed, and in which students described what they had done that week, what they had learned and what action they would make as a result of this. This allowed the lecturer to keep in touch with each of the students and to find out about difficulties before they became too large to handle effectively. The completion of the e-journal also meant that face-to-face meetings between the lecturer and the students were not so crucial.

- A code of behavior and expectations for students was developed and disseminated to all students.

- Students were allowed to organize their own school placement for 4 hours a week and work the other 4 hours a week in the common school.

These actions, implemented in the next semester, have significantly decreased the challenges noted in the first semester.

**Conclusion**

Involvement in the community engagement creative arts projects within a local primary school setting provided the prospective teacher education students with a valuable opportunity to use their own knowledge within the classroom; to gain new knowledge from their teachers, peers, action, reflection, and research; and to experience first hand the challenges and rewards of teaching the creative arts to children. Through the cycle of action and reflection they learned much more than if they had just participated in tutorials without the focused teaching experience. Although a theoretical and practical framework for teaching the arts in the primary school had been covered in the on-campus workshops, in the set text, and within their own research, it was not until they actually had the opportunity to teach lessons that they discovered appropriate knowledge, skills, and strategies and incorporated them into their teaching.

The *MMADD about the Arts* project allowed students to be involved in the active engagement of the learning process and to interact with other people for authentic purposes in order to achieve definable goals (Dudderar & Stover, 2003). As the project came to an
end, the students realized how much they had changed, both personally and professionally, in that they had increased their confidence and competence as neophyte teachers, they had learned much about teaching and creative arts education and they were confirmed in their choice of career. The school community also benefited from the project as children were developing skills, knowledge, attitudes, and understandings through being involved in the arts and working with the university students and teachers had extra assistance in their classrooms and learned new ideas in relation to implementing the creative arts.

These outcomes suggest that adding the fourth component of change to McCarthy’s (2003) three basic, interdependent components of service learning of experience, reflection, and knowledge should be considered. As students, teachers and children were involved in the service learning projects, clear evidence of change was perceived in each of the participant groups, with the greatest changes being perceived within the students’ lives, both personally and professionally.

One participant summed up the community service creative arts experience as follows:

I have created an image in my mind about my experience at the school: I imagine teachers, parents, university students and children all sitting at a big, round table. We all bring our own experiences and knowledge to the table, as we share these, we are all learning from each other. We are all equal and most importantly we are at the table for the same reason which is to bring positive change into each child’s life. As we reflect on our shared experiences and our individual knowledge, we all agree that there is more than one way to teach a subject, more than one way to bring change into a child’s life. We have all used the Creative Arts as springboards to create changes in ourselves and in the lives of children; these Creative Arts projects have been a success and everyone at the table is reaping the benefits of our community engagement projects. (ER)

References


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